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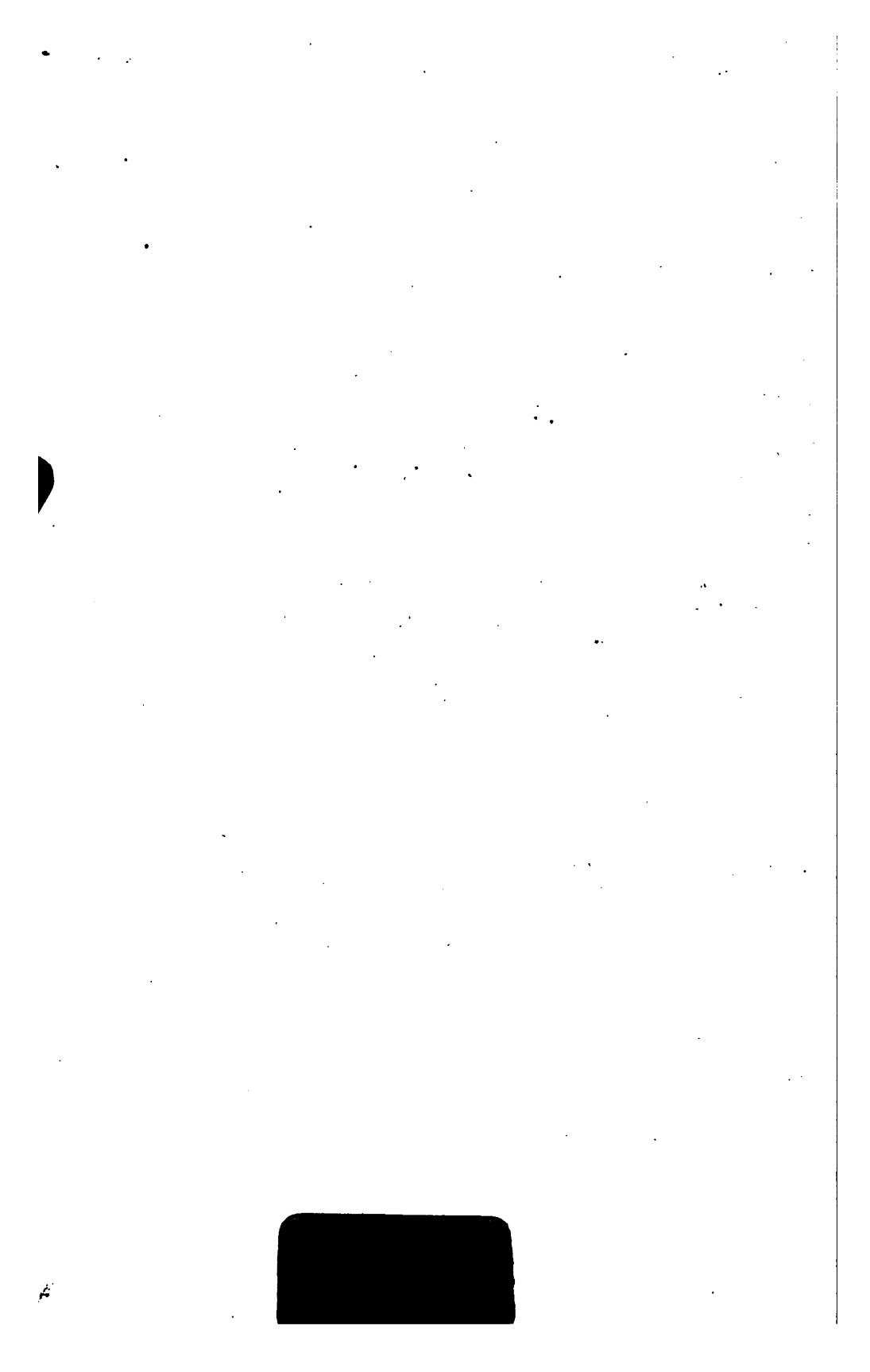
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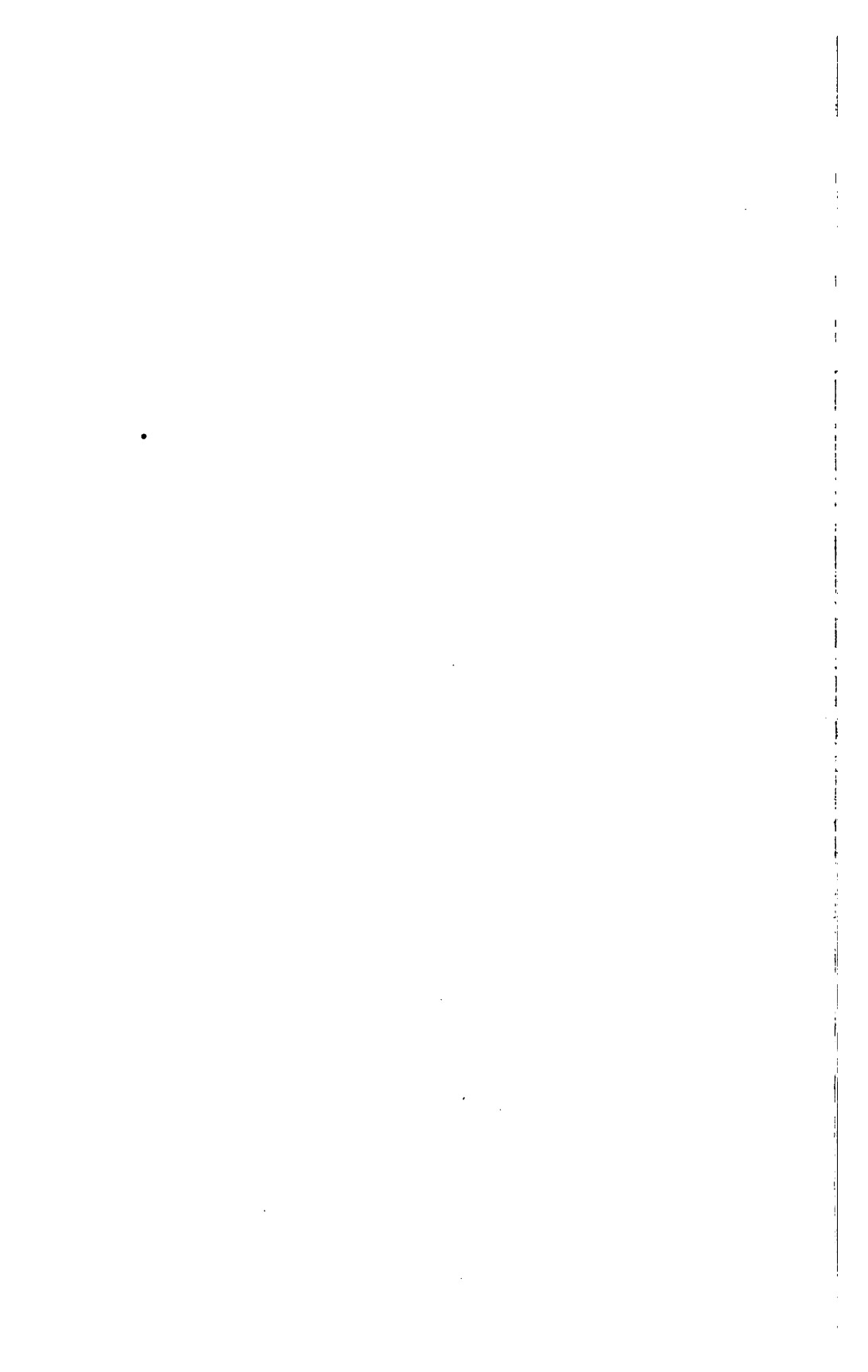
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TPD  
Railroad,









14 Aug 05

VOL. I.

No. 1.

—THE—

# RAILWAY PURCHASING AGENT'S DIRECTORY

CONTAINING DIRECTIONS WHERE TO PURCHASE EVERY  
ARTICLE USED IN CONSTRUCTING AND  
OPERATING RAILWAYS,

ALSO,

A LIST OF RAILWAYS, WITH NAME AND ADDRESS OF OFFICIALS  
IN CHARGE OF PURCHASING DEPARTMENTS.

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PUBLISHED SEMI-ANNUALLY BY  
**THE RAILWAY EQUIPMENT & FINANCE CO. (Inc.)**  
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## **PUBLISHER'S ANNOUNCEMENT.**

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The publisher submits this, the first semi-annual issue of The Railway Purchasing Agent's Directory, without apology for its existence. It is believed there is real demand for a compendium of information which shall tend to lighten the labor of buyers of supplies and bring dealers into closer contact with their market. During compilation recourse has been had to the best judgment and experience of many interested friends whose services are hereby publicly acknowledged. In succeeding issues it is designed to have all matter up to date and to enlarge the information within covers, correcting such errors as may have inadvertently crept into former issues. At all times the publisher will appreciate any suggestions tending to increase the efficiency of The Railway Purchasing Agent's Directory.

**THE RAILWAY EQUIPMENT & FINANCE COMPANY,**  
Publisher.

# THE JANNEY COUPLER

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**T**HE ORIGINAL and leading Coupler of the M. C. B. Type. Awarded Gold Medal at the International Exposition, Paris, 1900. ❦ ❦ ❦ ❦ ❦

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PITTSBURGH, PA.

# ALPHABETICAL LIST OF DEALERS IN RAIL- WAY SUPPLIES OF ALL KINDS.

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Note Advertisements on Pages as Shown.

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## 1 ABRASIVES—

Abrasive Material Co., Philadelphia, Pa.  
Best, L., 45 Vesey St., New York.  
Carborundum Co., The, Niagara Falls, N. Y.  
Detroit Emery Wheel Co., Detroit, Mich.  
Hampden Corundum Wheel Co., Bridgewood, Mass.  
Northampton Emery Wheel Co., 20 S. Canal St., Chicago, Ill.  
Norton Emery Wheel Co., Worcester, Mass.  
Springfield Manufacturing Co., Bridgeport, Conn.  
Standard Emery Wheel Co., Albany, N. Y.  
Standard Flint Paper Co., Arlington, N. J.  
Strelinger Co., Charles A., 96 Bates St., Detroit, Mich.  
Washington Mills Emery Mfg. Co., North Grafton, Mass.

## 2 ACCUMULATORS—Electric—

Akam Manufacturing Co., 12 Adams St., Chicago, Ill.  
American Battery Co., 174 S. Clinton St., Chicago, Ill.  
American Electric Supply and Construction Co., New York.  
Bunnell & Co., J. H., 76 Cortlandt St., New York.  
C. & C. Electric Co., 143 Liberty St., New York.  
Cleveland Electrical Mfg. Co., Cleveland, O.  
Electric Storage Battery Co., 838 Drexel Bldg., Philadelphia, Pa.  
Electro-Dynamic Co. of Philadelphia, 224 Ionic St., Phila., Pa.  
General Electric Co., Schenectady, N. Y.

## 3 ACCUMULATORS—Hydraulic—

Bement, Miles & Co., Philadelphia, Pa.  
Boomer & Boschert Press Co., Syracuse, N. Y.  
Davenport Foundry & Machine Co., Davenport, Ia.  
Olsen & Co., Tinius, 500 N. 12th St., Philadelphia, Pa.  
Philadelphia Roll & Machine Co., 23d St. & Wash. Ave., Phila., Pa.  
Mesta Machine Co., Lewis Block, Pittsburg, Pa.  
Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
Shaw, T., 915 Ridge Ave., Philadelphia, Pa.  
Tod & Co., William, Youngstown, O.  
Watson-Stillman Co., 210 E. 43d St., New York.

## 4 ACID—Battery—

Bissell Chemical Co., McKeesport, Pa.  
Irwin & Co., James, 343 6th Ave., Pittsburg, Pa.

5 ACID—Nitric and Muriatic—

Baker & Adamson Chemical Co., Easton, Pa.  
 Billings, Clapp & Co., 144 High St., Boston, Mass.  
 Bissell Chemical Co., McKeesport, Pa.  
 Chappell & Co., William H., St. Louis, Mo.  
 Commercial Guano Co., Savannah, Ga.  
 Cooper & Co., Charles, 194 Worth St., New York.  
 Grasselli Chemical Co., 63 Wall St., New York.  
 Mallinckrodt Chemical Works, St. Louis, Mo.  
 National Acid Co., New Orleans, La.  
 Western Chemical Co., Denver, Col.

6 ACID—Oxalic—

Baker & Adamson Chemical Co., Easton, Pa.  
 Billings, Clapp & Co., 144 High St., Boston, Mass.

7 ACID—Sulphuric—

Ammonia Co., Gray's Ferry Ave. & S. 29th St., Philadelphia, Pa.  
 Atwood Lead Co., Portland, Me.  
 Baker & Adamson Chemical Co., Easton, Pa.  
 Baldwin Fertilizer Co., Savannah, Ga.  
 Bissell Chemical Co., McKeesport, Pa.  
 Chappell & Co., William H., St. Louis, Mo.  
 Cleveland Dryer Co., Cleveland, O.  
 Columbia Guano Co., Norfolk, Va.  
 General Chemical Co., 32 Liberty St., New York.  
 Grasselli Chemical Co., 63 Wall St., New York.  
 Irwin & Co., James, Pittsburg, Pa.  
 Mallinckrodt Chemical Works, St. Louis, Mo.  
 Michigan Carbon Works, Detroit, Mich.  
 National Acid Co., New Orleans, La.  
 Powers & Weightman, 9th & Parrish Sts., Philadelphia, Pa.  
 Standard Guano & Chemical Mfg. Co., New Orleans, La.  
 Western Chemical Co., Denver, Col.

8 ADZES—

American Axe & Tool Co., Pittsburg, Pa.  
 Bostwick-Braun Co., The, Toledo, O.  
 Bradley's Sons, G. W., Westport, Conn.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Collins Co., Collinsville, Conn.  
 Crerar, Adams & Co., Chicago, Ill.  
 Findlay Axe & Tool Co., Findlay, O.  
 Frankfort Handle Manufacturing Co., Frankfort, Ind.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Ohio Tool Co., Columbus, O.  
 Peck, Fred W., Cohoes, N. Y.



## 8 ADZES—Continued.

Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Plumb, Fayette R., Tucker & James Sts., Philadelphia, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Terre Haute Shovel & Tool Co., Terre Haute, Ind.  
 White & Co., L. & I. J., Buffalo, N. Y.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 9 ALCOHOL—

Atlas Distilling Co., Peoria, Ill.  
 Bay View Distilling Co., San Francisco, Cal.  
 Clarke Distilling Co., Peoria, Ill.  
 Cooper & Co., Charles, 194 Worth St., New York.  
 Davis, Paul A., Jr., 136 N. Water St., Philadelphia, Pa.  
 Graves & Sons, C. H., 35 Hawkins St., Boston, Mass.  
 Kellar Co., A., Cynthiana, Ky.  
 Larkin & Scheffer, St. Louis, Mo.  
 Licking Valley Co., Covington, Ky.  
 Mills & Co., D. T., 40 India St., Boston, Mass.  
 Rosenfield Bros. & Co., 271 Madison St., Chicago, Ill.  
 Southern Re-Distilling & Rectifying Co. (Ltd.), New Orleans, La.  
 Vina Distillery, Vina, Cal.  
 Woodford Distilling Co., 79 Dearborn St., Chicago, Ill.

## 10 ALCOHOL—Wood—

Berry Bros. (Ltd.), Detroit, Mich.  
 Cooper & Co., Charles, 194 Worth St., New York.  
 Davis, Paul A., Jr., 136 N. Water St., Philadelphia, Pa.  
 Larkin & Scheffer, St. Louis, Mo.  
 Manhattan Spirit Co., Buffalo, N. Y.  
 Otto Chemical Co., Williamsport, Pa.  
 Peuchen & Co., North Tonawanda, N. Y.  
 Salomon & Bros., L. A., 216 Pearl St., New York.  
 Wolcott & Co., E. F., Marlboro, Mass.

## 11 AMMONIA—

Arctic Machine Manufacturing Co., Cleveland, O.  
 Baker & Adamson Chemical Co., Easton, Pa.  
 Billings, Clapp & Co., 144 High St., Boston, Mass.  
 Bissell Chemical Co., McKeesport, Pa.  
 Cooper & Co., Charles, 194 Worth St., New York.  
 Grasselli Chemical Co., 63 Wall St., New York.  
 Irwin & Co., James, 343 6th Ave., Pittsburg, Pa.  
 Mallinckrodt Chemical Works, St. Louis, Mo.  
 Michigan Ammonia Works, Detroit, Mich.  
 Northwestern Fertilizing Co., Union Stock Yards, Chicago, Ill.  
 Powers & Weightman, 9th & Parrish Sts., Philadelphia, Pa.  
 Western Chemical Co., Denver, Col.

## 12 ALUMINUM—

Cowles Electric Smelting and Aluminum Co., Lockport, N. Y.  
 Great Western Smelting and Refining Co., Chicago, Ill.  
 Janney, Steinmetz & Co., 646 Drexel Bldg., Philadelphia, Pa.  
 Pittsburg Reduction Co., Pittsburg, Pa.  
 Turner Brass Works, 122 E. Kinzie St., Chicago, Ill.  
 Zucker & Leavett & Loeb Co., 526 W. 25th St., New York.

**13 ALUMINUM BRONZE—**

Cowles Electric Smelting and Aluminum Co., Lockport, N. Y.  
 Great Western Smelting and Refining Co., Chicago, Ill.  
 Janney, Steinmetz & Co., 646 Drexel Bldg., Philadelphia, Pa.  
 Pittsburg Reduction Co., Pittsburg, Pa.  
 Williams & Son, E. A., Jersey City, N. J.

**14 ANGLE BARS—**

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Allentown Rolling Mills, Allentown, Pa.  
 Bethlehem Steel Co., So. Bethlehem, Pa.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Continuous Rail Joint Co. of America, Newark, N. J.  
 Diamond State Steel Co., Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 MORDEN FROG AND CROSSING WORKS, The Rookery, Chicago, Ill. See ad. page A 5.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pittsburg Forge and Iron Co., Pittsburg, Pa.  
 RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic Bldg., Indianapolis, Ind. See ad. page B 1.  
 Republic Iron & Steel Co., Stock Exchange Bldg., Chicago, Ill.  
 Riverside Iron Works (Inc.), Wheeling, W. V.  
 Sellers Manufacturing Co., 27 W. Chicago Ave., Chicago, Ill.  
 Tudor Iron Works, St. Louis, Mo.  
 Williams Track Joint Co., The, 1002 Monadnock Blk., Chicago, Ill.

**15 ANGLE GEARS—Pneumatic—**

CHICAGO PNEUMATIC TOOL CO., Monadnock Blk., Chicago, Ill. See ad. page B 2.  
 Standard Pneumatic Tool Co., Chicago, Ill.

**16 ANNUNCIATORS—Electric—**

Bradley & Co., E. C., 15 Stone St., Rochester, N. Y.  
 Bunnell & Co., J. H., 76 Cortlandt St., New York.  
 Partrick, Carter & Wilkins, 125 S. 2d St., Philadelphia, Pa.  
 Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

**17 ANTIMONY—**

American Metal Co. (Ltd.), 52 Broadway, New York.  
 Baker & Adamson Chemical Co., Easton, Pa.  
 Great Western Smelting and Refining Co., Chicago, Ill.  
 Hoyt Metal Co., Boyer Ave. and Clayton Road, St. Louis, Mo.  
 U. S. Smelting Works, 1615 Spring Garden St., Philadelphia, Pa.

**18 ANVILS—**

Baldwin, Tuthill & Bolton, Grand Rapids, Mich.  
 Cahill, Swift & Co., 408 N. 4th St., St. Louis, Mo.  
 Chicago Scale Co., 292 W. Jackson Boulevard, Chicago, Ill.  
 Eagle Anvil Works, Trenton, N. J.  
 Fulton Iron and Engine Works, Detroit, Mich.  
 Hay-Budden Manufacturing Co., 254 N. Henry St., Brooklyn, N. Y.  
 Illinois Iron and Bolt Co., Carpentersville, Ill.  
 Jenks, Henry F., Pawtucket, R. I.

## 18 ANVILS—Continued.

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
 Van Wagoner & Williams Hardware Co., 14 Warren St., New York.

## 19 ASBESTOS—

Bissell Chemical Co., McKeesport, Pa.  
 Carey Manufacturing Co., Philip, 415 E. Pearl St., Cincinnati, O.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Manville Covering Co., Milwaukee, Wis.  
 McConnell & Co., John A., Pittsburg, Pa.  
 Wood & Co., James F., Wilmington, Del.

## 20 ASBESTOS MATERIALS—

Carey Mfg. Co., The Philip, 415 E. Pearl St., Cincinnati, O.  
 Chicago Fire Proof Covering Co., 48 Franklin St., Chicago, Ill.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Manville Covering Co., Milwaukee, Wis.

## 21 ASPHALT—

Armitage Mfg. Co., Richmond, Va.  
 Barber Asphalt Paving Co., Washington, D. C.  
 Moen's Asphaltic Cement Co., 103 Malden Lane, New York.  
 Salomon & Bros., L. A., 216 Pearl St., New York.  
 U. S. Paving Co., 182 Broadway, New York.  
 Warren Chemical & Mfg. Co., 81 Fulton St., New York.  
 Watson Co., H. F., Erie, Pa.

## A21 ASPHALT ROOFING—

EASTERN GRANITE ROOFING CO., Jersey City, N. J. See ad. page A 6.

## 22 AUGERS—Carpenters'—

Bostwick-Braun Co., The, Toledo, O.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 Crerar, Adams & Co., Chicago, Ill.  
 DeWitt & Morrison, Darby, Pa.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Greenlee Bros. & Co., 225 W. 12th St., Chicago, Ill.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hamden Manufacturing Co., Hamden, Conn.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Humphreyville Manufacturing Co., Seymour, Conn.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Jennings & Co., C. E., 79 Reade St., New York.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Lehr Agricultural Co., Fremont, O.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.

- 22 AUGERS—Carpenters'—Continued.  
 Ohio Tool Co., Columbus, O.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.
- 23 AUGERS—Machine—  
 CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 Greenlee Bros. & Co., 225 W. 12th St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.
- 24 AUGERS—Nut—  
 Beecher, F. H., Seymour, Conn.  
 CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 Ford Bit Co., Holyoke, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 25 AUGERS—Ship—  
 Bostwick-Braun Co., The, Toledo, O.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Ford Bit Co., Holyoke, Mass.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Jennings & Co., C. E., 79 Reade St., New York.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Laughlin Co., Thomas, Portland, Me.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.
- 26 AWLS—Belt—  
 Billings & Spencer Co., Hartford, Conn.  
 Draper, Williams Manufacturing Co., 1 Hawley St., Boston, Mass.  
 Kraeuter Co., Newark, N. J.  
 Tuck Manufacturing Co., Brockton, Mass.
- 27 AWLS—Scratch—  
 Bostwick-Braun Co., The, Toledo, O.  
 Brown & Sharpe Manufacturing Co., Providence, R. I.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Devore & Co., L. M., Freeport, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.

## 27. AWLS—Scratch—Continued.

James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Russell & Erwin Manufacturing Co., 45 Chambers St., New York.  
 Sargent Manufacturing Co., 8 Bible House, New York.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Tuck Manufacturing Co., Brockton, Mass.  
 West Manufacturing Co., Buffalo, N. Y.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 28. AWNINGS—

Boyle & Co., John, 203 Fulton St., New York.  
 Cook & Bro., E. C., 40 Dearborn St., Chicago, Ill.  
 Detroit Tent and Awning Co., Detroit, Mich.  
 Dougherty Bros., St. Louis, Mo.  
 Neville & Co., San Francisco, Cal.  
 Patton & Co., R. J., 222 E. 4th St., Cincinnati, O.

## 29. AXES—

American Axe & Tool Co., Pittsburg, Pa.  
 Bangor Edge Tool Co., 113 Exchange St., Bangor, Me.  
 Bostwick-Braun Co., The, Toledo, O.  
 Bradley's Sons, G. W., Westport, Conn.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Emerson & Stevens Manufacturing Co., Oakland, Me.  
 Findlay Axe & Tool Co., Findlay, O.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Harding Edge Tool Co., Newark, N. J.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Ohio Tool Co., Columbus, Ohio.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Terre Haute Shovel & Tool Co., Terre Haute, Ind.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 30. AXLES—Car—

American Car & Foundry Co., St. Louis, Mo.  
 Cambria Steel Co., 813 Harrison Bldg., Philadelphia, Pa.  
 Carbon Steel Co. of America, Pittsburg, Pa.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Cayuta Wheel & Foundry Co., Sayre, Pa.  
 Cleveland City Forge & Iron Co., Cleveland, Ohio.  
 Fulton Engineering & Shipbuilding Works, San Francisco, Cal.

30 AXLES—Car—Continued.

Fulton Foundry Co., Cleveland, Ohio.  
 Gould Coupler Co., 66 Broadway, New York.  
 Jones & Laughlins (Ltd.), Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 La Belle Steel Co., Pittsburg, Pa.  
 Letort Axle & Machine Works, Carlisle, Pa.  
 Lima Locomotive & Machine Co., Lima, Ohio.  
 Louisville Steam Forge Co., Louisville, Ky.  
 McKee, Fuller & Co., Catasauqua, Pa.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 Mowry Car Wheel Works, Cincinnati, Ohio.  
 New York Car Wheel Works, Buffalo, N. Y.  
 Otis Steel Co. (Ltd.), Cleveland, Ohio.  
 Peacock's Iron Works, Selma, Ala.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pittsburg Forge & Iron Co., Pittsburg, Pa.  
 Pottsville Iron & Steel Co., Pottsville, Pa.  
 Prosser & Son, Thomas, 15 Gold St., New York.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Roberts Co., A. & P., 261 S. 4th St., Philadelphia, Pa.  
 Sheldon Axle Co., Wilkesbarre, Pa.  
 Singer, Nimick & Co. (Inc.), Pittsburg, Pa.  
 Stephenson Co., John (Ltd.), 47 E. 27th St., New York.  
 Taylor Iron & Steel Co., High Bridge, N. J.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis, Mo. See ad.  
 page A 5.  
 Tredegar Co., Richmond, Va.  
 Troy Steel Co., Troy, N. Y.  
 Vulcan Iron Works, Wilkesbarre, Pa.

31 AXLES—Hammered—

Cleveland City Forge & Iron Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 McKee, Fuller & Co., Catasauqua, Pa.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pittsburg Forge & Iron Co., Pittsburg, Pa.

32 AXLES—Hand and Push Car—

Allison Manufacturing Co., 32d & Walnut Sts., Philadelphia, Pa.  
 Brill Co., J. G., 62d St. & Woodland Ave., Philadelphia, Pa.  
 Buda Foundry & Manufacturing Co., Harvey, Ill.  
 Cleveland City Forge & Iron Co., Cleveland, Ohio.  
 Fairbanks, Morse & Co., Franklin & Monroe Sts., Chicago, Ill.  
 Kalamazoo Railroad Velocipede & Car Co., Kalamazoo, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Roberts Car & Wheel Co., Three Rivers, Mich.  
 Russell Wheel & Foundry Co., Detroit, Mich.  
 Sheffield Car Co., Three Rivers, Mich.

33 AXLES—Locomotive—

Bethlehem Steel Co., S. Bethlehem, Pa.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carbon Steel Co. of America, Pittsburg, Pa.  
 Gould Coupler Co., 66 Broadway, New York.  
 Jones & Co., B. M., Boston, Mass.

## 33 AXLES—Locomotive—Continued.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Louisville Steam Forge Co., Louisville, Ky.  
 Midvale Steel Co., Philadelphia, Pa.  
 Otis Steel Co. (Ltd.), Cleveland, Ohio.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pittsburg Forge & Iron Co., Pittsburg, Pa.  
 Prosser & Son, Thomas, 15 Gold St., New York.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Taylor Iron & Steel Co., High Bridge, N. J.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Wendell & MacDuffie, 26 Cortlandt St., New York.

## 34 AXLES—Mine Car—

American Engineering Works, 204 Dearborn St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Sheffield Car Co., Three Rivers, Mich.  
 Sheldon Axle Co., Wilkesbarre, Pa.  
 Vulcan Iron Works, Wilkesbarre, Pa.

## 35 BABBITT—

Acme Journal Bearing Co., 47 S. Canal St., Chicago, Ill.  
 Atkins & Co., E. C., Indianapolis, Ind.  
 Baker-White Brass Co., 3 York St., New York.  
 Besly & Co., Charles H., 10 N. Canal St., Chicago, Ill.  
 Best, Fox & Co., Pittsburg, Pa.  
 Blatchford & Co., E. W., 70 N. Clinton St., Chicago, Ill.  
 Brady Brass Co., 202 10th St., Jersey City, N. J.  
 Clover Leaf Anti-Friction Metal Co., Jersey City, N. J.  
 Damascus Bronze Co., Pittsburg, Pa.  
 Delaware Metal Refinery, 18th St. & Wash. Ave., Philadelphia.  
 Epping-Carpenter Co., Pittsburg, Pa.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Fullmer & Co., A. J., Camden, N. J.  
 Great Western Smelting & Refining Co., Chicago, Ill.  
 Hand & Co., E. L., 616 Market St., Philadelphia, Pa.  
 Hayden & Co., J. M., Grand Rapids, Mich.  
 Hoyt Metal Co., Boyer Ave. and Clayton Road, St. Louis, Mo.  
 Johnson Co., Loraine, Ohio.  
 KINSEY CO., E. A., Cincinnati, Ohio. See ad. page A 4.  
 Magnolia Metal Co., 266 West St., New York.  
 McCORD & CO., 1475 Old Colony Bldg., Chicago, Ill.  
 More-Jones Brass & Metal Co., St. Louis, Mo.  
 National Lead Co., St. Louis, Mo.  
 Phosphor Bronze Smelting Co. (Ltd.), 2200 Washington Ave., Philadelphia, Pa.  
 Powell Co., William, 50 Plum St., Cincinnati, Ohio.  
 Reeves & Son, Paul S., Philadelphia, Pa.  
 Schultz & Co., A., 1016 E. Baltimore St., Baltimore, Md.  
 Selby Smelting & Lead Co., San Francisco, Cal.  
 Simpson & Collier, Old Colony Bldg., Chicago, Ill.  
 Spiral Journal Bearing Co., 1543 N. 2d St., St. Louis, Mo.  
 Springfield Brass Co., Springfield, Ohio.

35 BABBITT—Continued.

U. S. Smelting Works, 1615 Spring Garden St., Philadelphia, Pa.  
Walworth Manufacturing Co., 16 Oliver St., Boston, Mass.  
ZELNICKER, WALTER A., 208 N. 3d St., St. Louis, Mo. See  
ad. page A 5.

36 BADGES—

American Railway Supply Co., 24 Park Place, New York.  
Cooke, Robert F., 76 Nassau St., New York.  
Denver Novelty Work & Manufacturing Co., Denver, Col.  
Diel & Bros., Geo., St. Louis, Mo.  
New York Stencil Works, 100 Nassau St., New York.  
Schwaab Stamp & Seal Co., Milwaukee, Wis.  
Singer & Co., A. L., 233 Monroe St., Chicago, Ill.  
Woodman Manufacturing & Supply Co., The, 63 Oliver St., Boston, Mass.

37 BAGS—Ballast—

Chase Bag Co., H. & L., St. Louis, Mo.  
Halsted & Co., E. S., 75 Pearl St., New York.  
McHugh, John F., New York.

38 BAGS—Burlap—

Adams, Jewett & Co., Cleveland, Ohio.  
Bailey & Co., John T., 1136 Market St., Philadelphia, Pa.  
Bemis Bros. Bag Co., St. Louis, Mo.  
Chase Bag Co., H. & L., St. Louis, Mo.  
Fulton Bag & Cotton Mills, Atlanta, Ga.  
Gulf Bag Co. (Ltd.), New Orleans, La.  
Halsted & Co., E. S., 75 Pearl St., New York.  
Hardwood Manufacturing Co., Minneapolis, Minn.  
Milwaukee Bag Co., 51 Erie St., Milwaukee, Wis.  
Neahr & Co., M. J., 89 S. Clinton St., Chicago, Ill.  
Neville & Co. (Inc.), San Francisco, Cal.

39 BAGS—Mail—

American Railway Supply Co., Park Place, New York.  
Bastedo Package & Cash Carrier Co., Chicago, Ill.  
Cook & Bro., E. C., 40 Dearborn St., Chicago, Ill.  
Peddie & Co., T. B. (Inc.), Newark, N. J.  
Railroad Remittance Bag Co., 328 W. Court St., Indianapolis, Ind.

40 BALANCES—Car Sash—

Dayton Manufacturing Co., Dayton, Ohio.  
Edwards, O. M., Syracuse, N. Y.  
Pullman Sash Balance Co., Rochester, N. Y.

A 40 BALLAST—Burnt Clay—

American Ballast Co., 1001 Security Bldg., Chicago, Ill.

41 BALLAST SPREADERS—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
McDuff, H. H., Agt., 521 Monadnock Block, Chicago, Ill.

42 BALLAST UNLOADERS—

Industrial Works, Bay City, Mich.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Lidgerwood Manufacturing Co., 96 Liberty St., New York.  
Marion Steam Shovel Co., Marion, Ohio.



## 43 BANDS—Hose—

Hudson Parer Co., Leominster, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Springfield Brass Co., Springfield, Ohio.  
 Yerdon, Wm., Ft. Plain, N. Y.

## 44 BARS—Arch—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 45 BARS—Claw—

Aetna-Standard Iron & Steel Co., Bridgeport, Ohio.  
 Atha Tool Co., Newark, N. J.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 DETROIT STEEL & SPRING CO., Detroit, Mich. See ad. page A 8.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Laughlin Co., Thomas, Portland, Me.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Verona Tool Works, Pittsburg, Pa.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 46 BARS—Crow—

Atha Tool Co., Newark, N. J.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Cumberland Steel & Tin Plate Works, Cumberland, Md.

46 BARS—Crow—Continued.

Dickson Manufacturing Co., Scranton, Pa.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Plumb, Fayette R., Tucker and James Sts., Philadelphia, Pa.  
 Troy Steel Co., Troy, N. Y.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

47 BARS—Equalizing—

Edwards, C. D., Albert Lea, Minn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Whitman & Barnes Manufacturing Co., Akron, Ohio.

48 BARS—Grate—

Dickson Manufacturing Co., Scranton, Pa.  
 Emporia Foundry & Machine Works, Emporia, Kas.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Hubbard, H. N., 18 N. Cliff St., New York.  
 Mohr & Sons, John, 32 Illinois St., Chicago, Ill.  
 Munroe & Son, R., Pittsburg, Pa.  
 Vulcan Iron Works, Wilkesbarre, Pa.

49 BARS—Lining and Tamping—

Atha Tool Co., Newark, N. J.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Doble Co., Abner, San Francisco, Cal.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Plumb, Fayette R., Tucker and James Sts., Philadelphia, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Troy Steel Co., Troy, N. Y.  
 Verona Tool Works, Pittsburg, Pa.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 50 BARS—Pinch—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Cleveland Axle Manufacturing Co., Cleveland, Ohio.  
 Crerar, Adams, & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., 1423 Chestnut St., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Nims, F. B., Lake Odessa, Mich.  
 Pearson Jack Co., 64 Federal St., Boston, Mass.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Stafford & Bros., Steinway Hall, Chicago, Ill.  
 Thornburgh-Creel Co., 241 Jefferson St., Chicago, Ill.  
 Troy Steel Co., Troy, N. Y.  
 Verona Tool Works, Pittsburg, Pa.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 51 BARS—Splice—

Allentown Rolling Mills, Allentown, Pa.  
 AMERICAN STEEL & WIRE CO., The Rookery, Chicago, Ill.  
 See ad. inside front cover.  
 Bethlehem Steel Co., S. Bethlehem, Pa.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Diamond State Steel Co., Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 MORDEN FROG & CROSSING WORKS, The Rookery, Chicago, Ill. See ad. page A 5.  
 Pennsylvania Steel Co., Pittsburg, Pa.  
 Pittsburg Forge & Iron Co., Pittsburg, Pa.  
 RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic Bldg., Indianapolis, Ind. See ad. page B 1.  
 Republic Iron & Steel Co., Stock Exchange Bldg., Chicago, Ill.  
 Riverside Iron Works (Inc.), Wheeling, W. Va.  
 Sellers Manufacturing Co., 27 W. Chicago Ave., Chicago, Ill.  
 Tudor Iron Works, St. Louis, Mo.

## 52 BARS—Switch—

Ajax Forge Co., 138 Jackson Boulevard, Chicago, Ill.  
 Allentown Rolling Mills, Allentown, Pa.  
 Bowler & Co., Cleveland, Ohio.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Cleveland Frog & Crossing Co., Cleveland, Ohio.  
 ELLIOTT FROG & SWITCH CO., E. St. Louis, Ill. See ad. page A 5.  
 Fulton Foundry Co., Cleveland, Ohio.  
 Huebel & Manger, 286 Graham St., Brooklyn, N. Y.

**52 BARS—Switch—Continued.**

Indianapolis Switch & Frog Co., The., Springfield, Ohio.  
 Johnstown Railroad Frog & Switch Co., Chester, Pa.  
 Kenney & Co., Scottdale, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Louisville Bridge & Iron Co., Louisville, Ky.  
 MORDEN FROG & CROSSING WORKS, The Rookery, Chicago,  
 Ill. See ad. page A 5.  
 New York Switch & Crossing Co., Hoboken, N. J.  
 Peacock's Iron Works, Selma, Ala.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pettibone, Mulliken & Co., Marquette Bldg., Chicago, Ill.  
 Ramapo Iron Works, Hillburn, N. Y.  
 Sheffield Car Co., Three Rivers, Mich.  
 Standard Railroad Signal Co., Troy, N. Y.  
 Steele & Sons, J. C., Statesville, N. C.  
 Union Switch & Signal Co., Swissvale, Pa.  
 Weir Frog Co., Cincinnati, Ohio.  
 Wharton & Co. (Inc.), Wm., Jr., 308 Walnut St., Philadelphia, Pa.

**53 BARRELS—Water—**

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**54 BARROWS—Baggage—**

Boston & Lockport Block Co., Boston, Mass.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Buffalo Scale Co., Buffalo, N. Y.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Clark Co., W. J., Salem, Ohio.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Fairbanks, Morse & Co., Franklin & Monroe Sts., Chicago, Ill.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Howe Scale Co. of 1886, Rutland, Vt.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lansing Wheelbarrow Co., Lansing, Mich.  
 Linley Supply Co., Ezra H., St. Louis, Mo.

## 54 BARROWS—Baggage—Continued.

Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Roberts Car & Wheel Co., Three Rivers, Mich.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Syracuse Chilled Plow Co., Syracuse, N. Y.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 55 BARROWS—Coal—

Ames Plow Co., Boston, Mass.  
 Bickerton, T. B., 23 N. 6th St., Philadelphia, Pa.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Boyts, Porter & Co., Connellsville, Pa.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Defiance Box Co., Defiance, Ohio.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Evans, F. H., 596 Kent Ave., Brooklyn, N. Y.  
 Grand Rapids Wheelbarrow Co., Grand Rapids, Mich.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Phillips, Doup & Co., Pearl and Water Sts., Brooklyn, N. Y.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Rockwell, Mrs. S. L., Jordan, N. Y.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Sidney Steel Scraper Co., Sidney, Ohio.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 56 BARROWS—Railroad—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Defiance Box Co., Defiance, Ohio.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Grand Rapids Wheelbarrow Co., Grand Rapids, Mich.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Jackson Manufacturing Co., Harrisburg, Pa.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 McWhinnie Wheelbarrow Works, Poughkeepsie, N. Y.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Rockwell, Mrs. S. L., Jordan, N. Y.

**56 BARROWS—Railroad—Continued.**

Sherburne & Co., 53 Oliver St., Boston, Mass.  
Sidney Steel Scraper Co., Sidney, Ohio.  
Toledo Wheelbarrow Works, Toledo, Ohio.  
Western Wheeled Scraper Co., Aurora, Ill.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**57 BARROWS—Stone—**

Bostwick-Braun Co., The, Toledo, Ohio.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Defiance Box Co., Defiance, Ohio.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
James & Co. (Inc.), Chattanooga, Tenn.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Rockwell, Mrs. S. L., Jordan, N. Y.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
Sidney Steel Scraper Co., Sidney, Ohio.  
Toledo Wheelbarrow Works, Toledo, Ohio.  
Withington & Cooley Manufacturing Co., Jackson, Mich.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**58 BATTERIES—Blasting—**

Bunnell & Co., J. H., 76 Cortlandt St., New York.  
Kirk & Son, Arthur, Pittsburg, Pa.  
Macbeth & Co., James, 128 Maiden Lane, New York.  
Rendrock Powder Co., 100 Broadway, New York.  
Western Electric Co., 242 Jefferson St., Chicago, Ill.

**59 BATTERIES—Dry—**

Electric Appliance Co. (Inc.), Burlington, Kas.  
Kester Electric Manufacturing Co., Buffalo, N. Y.  
Keystone Telephone Co., 565 Old Ave., Pittsburg, Pa.  
Miamisburg Electric Co., Miamisburg, Ohio.

**60 BATTERIES—Gravity—**

American Signal Co., The, Guilford and Girard Aves., Baltimore, Md.  
Bunnell & Co., J. H., 76 Cortlandt St., New York.  
Electric Storage Battery Co., 838 Drexel Bldg., Philadelphia, Pa.  
Electro-Dynamic Co. of Philadelphia, 224 Ionic St., Philadelphia.  
Edison Manufacturing Co., 135 5th Ave., New York.  
General Electric Co., Schenectady, N. Y.  
Gethius Electric Manufacturing Co., 620 Atlantic Ave., Boston.  
Hall Signal Co., 44 Broad St., New York.

**61 BATTERIES—Le Clanche—**

Bernard Co., E. G., Troy, N. Y.  
Gordon-Burnham Battery Co., 594 Broadway, New York.  
Le Clanche Battery Co., 117 E. 131st St., New York.

**62 BATTERIES—Storage—**

American Battery Co., 174 S. Clinton St., Chicago, Ill.  
 CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 Dayton Manufacturing Co., Dayton, Ohio.  
 Electric Storage Battery Co., 838 Drexel Bldg., Philadelphia, Pa.  
 Elwell-Parker Electric Co., Hamilton St., Cleveland, Ohio.  
 High Tension Electric Storage Co., 1215 Filbert St., Philadelphia.

**63 BATTERY SUPPLIES—**

American Signal Co., The, Guilford and Girard Aves., Baltimore.  
 Bunnell & Co., J. H., 76 Cortlandt St., New York.  
 Edison Phonograph Agency, 44 Broad St., New York.  
 Goodrich Hard Rubber Co., Akron, Ohio.  
 Gordon-Burnham Battery Co., 504 Broadway, New York.  
 Hall Signal Co., 44 Broad St., New York.  
 Jeffords & Co., John E., 2715 Edgemont St., Philadelphia, Pa.  
 National Carbon Co., Cleveland, Ohio.  
 New England Pottery Co., E. Boston, Mass.  
 Peru Electric Manufacturing Co., Peru, Ind.  
 Rodefer Bros., Bellaire, Ohio.  
 Salem Glass Works, Salem, N. J.

**64 BEARINGS—Car and Locomotive Journal—**

Acme Journal Bearing Co., 47 S. Canal St., Chicago, Ill.  
 Ajax Metal Co., The, Philadelphia, Pa.  
 Allison Manufacturing Co., S. 32d and Walnut Sts., Philadelphia.  
 Atlantic Brass Co., 192 Broadway, New York.  
 Bemis Car Box Co., Springfield, Mass.  
 Bierbaum & Merrick Metal Co., The, Prudential Bldg., Buffalo.  
 Brady Brass Co., Jersey City, N. J.  
 Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Conn.  
 Brown Co., A. & F., 25 Dey St., New York.  
 Damascus Bronze Co., Pittsburg, Pa.  
 Diamond State Car Spring Co., Wilmington, Del.  
 Filler & Stowell Co. (Ltd.), Milwaukee, Wis.  
 Fulton Iron & Engine Works, Detroit, Mich.  
 Graphite Lubricating Co., Bound Brook, N. J.  
 Great Western Manufacturing Co., Leavenworth, Kas.  
 Hewitt Manufacturing Co., Chicago, Ill.  
 Magnolia Metal Co., 10 Pacific Ave., Chicago, Ill.  
 Magnus Metal Co., New York.  
 Mansfield Tempered Copper Co., Mansfield, Ohio.  
 Mayer & England, 10 S. 10th St., Philadelphia, Pa.  
 McGuire Manufacturing Co., 122 N. Sangamon St., Chicago, Ill.  
 McKenna & Bro., James J., 424 E. 23d St., New York.  
 Meneely & Son, Geo. R., Watervliet, N. Y.  
 Milwaukee Brass & Copper Works, Milwaukee, Wis.  
 More-Jones Brass & Metal Co., St. Louis, Mo.  
 National Railway Specialty Co., Old Colony Bldg., Chicago, Ill.  
 Nuttall Co., R. D., Allegheny, Pa.  
 Ohio Brass Co., Mansfield, Ohio.  
 Peerless Metal Refining Co., 1008 24th St., Kansas City, Mo.  
 Phosphor Bronze Smelting Co., Philadelphia, Pa.  
 Reeves & Son, Paul S., Philadelphia, Pa.  
 Sanford, D. C., Bridgeport, Conn.  
 Simpson & Collier, Old Colony Bldg., Chicago, Ill.

- 64—BEARINGS—Car and Locomotive Journal—Continued.  
 Spiral Journal Bearing Co., 1543 N. 2d St., St. Louis, Mo.  
 Stewart & Mattson Manufacturing Co., 2042 N. 10th St., Philadelphia, Pa.  
 U. S. Bronze Co., The, Cleveland, Ohio.  
 Van Dorn & Dutton Co., Cleveland, Ohio.  
 Wendell & McDuffie, 26 Cortlandt St., New York.  
 Western Electrical Supply Co., St. Louis, Mo.  
 Wharton & Co., Wm., Jr., 308 Walnut St., Philadelphia, Pa.  
 Whitney Car Wheel Works, 901 Montgomery Ave., Philadelphia.  
 Williams & Son, E. A., Jersey City, N. J.
- 65 BEARINGS—Clutch Pulley—  
 Graphite Lubricating Co., Bound Brook, N. J.
- 66 BEARINGS—Journal—Bronze—  
 Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Conn.  
 Fulton Iron & Engine Works, Detroit, Mich.  
 Graphite Lubricating Co., Bound Brook, N. J.  
 Meneely & Son, Geo. R., Watervliet, N. Y.  
 Phosphor Bronze Smelting Co. (Ltd.), Philadelphia, Pa.  
 Williams & Son, E. A., Jersey City, N. J.
- 67 BEARINGS—Journal—Self-Oiling—  
 Fairmount Machine Co., 2106 Wood St., Philadelphia, Pa.  
 Medart Patent Pulley Co., 277 S. Canal St., Chicago, Ill.  
 Stilwell-Bierce & Smith-Valle Co., Dayton, Ohio.  
 Woonsocket Machine & Press Co., Woonsocket, R. I.
- 68 BEARINGS—Loose Pulley—  
 Graphite Lubricating Co., Bound Brook, N. J.
- 69 BEARINGS—Shaft—  
 Link-Belt Machinery Co., Chicago, Ill.
- 70 BEARINGS—Step—  
 Cresson Co., Geo. V., 18th St. & Allegheny Ave., Philadelphia, Pa.  
 Fairmount Machine Co., 2106 Wood St., Philadelphia, Pa.  
 Graphite Lubricating Co., Bound Brook, N. J.  
 Poole & Son Co., Robert, Baltimore, Md.  
 Stilwell-Bierce & Smith-Valle Co., Dayton, Ohio.  
 Vulcan Iron Works, Wilkesbarre, Pa.
- 71 BEATERS—Car Cushion—  
 Planet Manufacturing Co., Springfield, Mass.
72. BEDS—Engine—  
 Walker Foundry Co., Erie, Pa.
- 73 BELLS—Car—  
 Cincinnati Bell Foundry Co., Cincinnati, Ohio.  
 Mayer & England, 10 S. 10th St., Philadelphia, Pa.  
 New Departure Bell Co., Bristol, Conn.  
 Ohio Brass Co., Mansfield, Ohio.  
 Phosphor Bronze Smelting Co. (Ltd.), Philadelphia, Pa.  
 Pittsburgh Steel Hollow Ware Co., Allegheny, Pa.  
 Seamless Structural Co., Milwaukee, Wis.  
 Western Electrical Supply Co., St. Louis, Mo.



**74 BELLS—Electric—**

Ansonia Electric Co., Ansonia, Conn.  
 Bernard Co., E. G., Troy, N. Y.  
 Bradley & Co., E. C., 15 Stone St., Rochester, N. Y.  
 Bunnell & Co., J. H., 76 Cortlandt St., New York.  
 Gong Bell Manufacturing Co., E. Hampton, Conn.  
 Novelty Electric Co., 54 N. 4th St., Philadelphia, Pa.  
 Partrick, Carter & Wilkins, 125 S. 2d St., Philadelphia, Pa.  
 Proctor-Raymond Manufacturing Co., 444 Niagara St., Buffalo.  
 Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

**75 BELLS—Gong—**

Ashcroft Manufacturing Co., 85 Liberty St., New York.  
 Bevin Bros. Manufacturing Co., E. Hampton, Conn.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Chapman Manufacturing Co., Meriden, Conn.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Gong Bell Manufacturing Co., E. Hampton, Conn.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 Meriden Bronze Co., Meriden, Conn.  
 New Departure Bell Co., Bristol, Conn.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sexton, D. W., E. Hampton, Conn.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Vanduzen Co., E. W., Cincinnati, Ohio.  
 Williams & Son, E. A., 105 Plymouth St., Jersey City, N. J.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**76 BELLS—Locomotive—**

Baldwin Locomotive Works, Philadelphia, Pa.  
 Bevin Bros. Manufacturing Co., E. Hampton, Conn.  
 McShane Bell Foundry, Baltimore, Md.  
 Register & Sons, J., Baltimore, Md.  
 Rumsey & Co. (Ltd.), Seneca Falls, N. Y.  
 Vanduzen Co., E. W., Cincinnati, Ohio.  
 Wheeler Foundry Co., Worcester, Mass.  
 Williams & Son, E. A., 107 Plymouth St., Jersey City, N. J.

**77 BELL RINGERS—Locomotive—**

Buck Manufacturing Co., M. M., St. Louis, Mo.  
 U. S. Metallic Packing Co., 427 N. 13th St., Philadelphia, Pa.

**78 BELL RINGERS—Pneumatic—**

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago, Ill. See ad. page B 2.  
 Standard Pneumatic Tool Co., Chicago, Ill.  
 Western Railway Equipment Co., St. Louis, Mo.

## 79 BELLOWS—Blacksmiths'—

Bickerton, T. B., 23 N. 6th St., Philadelphia, Pa.  
Bullock Bellows Co., Cleveland, Ohio.  
California Bellows Manufacturing Co., San Francisco, Cal.  
Christen & Son, F., 1320 Biddle St., St. Louis, Mo.  
Churchyard, Joseph J., 648 Clinton St., Buffalo, N. Y.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Scott, George M., Johnson and W. 22d Sts., Chicago, Ill.

## 80 BELLOWS—Portable Force—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Woodason, Thomas, 2900 D St., Philadelphia, Pa.

## 81 BELTING—Cotton—

Atkins & Co., E. C., Indianapolis, Ind.  
Boston Woven Hose & Rubber Co., Boston, Mass., Fred'k Swift  
& Co., Agts., Old Colony Bldg., Chicago, Ill.  
Bostwick-Braun Co., The, Toledo, Ohio.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Estate of H. S. Sawyer, Colebrook River, Conn.  
Greenwoods Co., New Hartford, Mass.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
James & Co. (Inc.), Chattanooga, Tenn.  
Jeffrey Manufacturing Co., Columbus, Ohio.  
KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
Neville & Co., San Francisco, Cal.  
New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
ZEINICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 82 BELTING—Leather—

Akron Belting Co., Akron, Ohio.  
Alexander Bros., 410 N. 3d St., Philadelphia, Pa.  
American Oak Leather Co., Cincinnati, Ohio.  
American Supply Co., Providence, R. I.  
Atkins & Co., E. C., Indianapolis, Ind.  
Barry Saw & Supply Co., Indianapolis, Ind.  
Bay State Belting Co., Boston, Mass.  
Bickford & Francis Belting Co., Buffalo, N. Y.  
Bostwick-Braun Co., The, Toledo, Ohio.  
Bradford Belting Co., Cincinnati, Ohio.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Detroit Oak Belting Co., Detroit, Mich.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Gates & Sons, Josiah, Lowell, Mass.  
Graton & Knight Manufacturing Co., Worcester, Mass.

**82 BELTING—Leather—Continued.**

Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Jewell Belting Co., Hartford, Conn.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 McGowan Co., John H., Cincinnati, Ohio.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 New York Belting & Packing Co., 25 Park Place, New York.  
 New York Leather Belting Co., 8 Ferry St., New York.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Rhoads & Sons, J. E., Wilmington, Del.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Sprout-Waldron & Co., Muncy, Pa.  
 TOPPAN CO., THE J. S., Great Northern Bldg., Chicago, Ill.  
 See ad. page A 8.  
 Union Belt Co., Fall River, Mass.  
 Willemsen Belting Co., St. Louis, Mo.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**83 BELTING—Round—**

Boston Belting Co., Boston, Mass.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Herkner, H. F., 281 Front St., New York.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 Munson Belting Co., Charles, 36 S. Canal St., Chicago, Ill.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Rhoads & Son, J. E., Philadelphia, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Sumner Belting Co., William, Tolland, Conn.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**84 BELTING—Rubber—**

Akron Rubber Works, Akron, Ohio.  
 BARRY SAW & SUPPLY CO., W. B., Indianapolis, Ind.  
 Boston Belting Co., Boston, Mass.  
 Boston Woven Hose & Rubber Co., Boston, Mass., Fred'k Swift  
 & Co., Agts., Old Colony Bldg., Chicago, Ill.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Chicago Rubber & Belting Co., 312 Dearborn St., Chicago, Ill.

93 BITS—Machine—

CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 Greenlee Bros. & Co., 225 W. 12th St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.

94 BITS—Wood Boring—

CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 Greenlee Bros. & Co., 225 W. 12th St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.

95 BLOCKS—Bronze Hoisting—

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Shelton Co., Derby, Conn.

96 BLOCKS—For Wire Rope—

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Boston & Lockport Block Co., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Leschen & Sons Rope Co., A., St. Louis, Mo.

97 BLOCKS—Iron Hoisting—

American Hoist & Derrick Co., St. Paul, Minn.  
 Boston & Lockport Block Co., Boston, Mass.  
 Case Manufacturing Co., Columbus, O.  
 Chisholm & Moore Manufacturing Co., Cleveland, O.  
 Contractors' Plant Manufacturing Co., 129 Erie St., Buffalo, N. Y.  
 Detroit Block Works, Detroit, Mich.  
 Harrington, Son & Co., E. (Inc.), N. 15th & Pennsylvania Ave., Philadelphia, Pa.  
 Hunt Co., C. W., 45 Broadway, New York.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Laughlin Co., Thomas., Portland, Me.  
 Leschen & Sons Rope Co., A., St. Louis, Mo.  
 Yale & Towne Manufacturing Co., Stamford, Conn.

98 BLOCKS—Lining—

GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.  
 See ad. page A 2.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.

99 BLOCKS—Pillow—

American Hoist & Derrick Co., St. Paul, Minn.  
 American Wood Working Machine Co., 141 Broadway, New York.  
 Chickasaw Iron Works, Memphis, Tenn.  
 Comstock Manufacturing Co., Kalamazoo, Mich.  
 Defiance Machine Works, Defiance, O.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Great Western Manufacturing Co., Leavenworth, Kas.  
 Howard Iron Works, Buffalo, N. Y.  
 Jeffrey Manufacturing Co., Columbus, O.  
 Jones & Laughlins (Ltd.), Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Leschen & Sons Rope Co., A., St. Louis, Mo.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Medart Patent Pulley Co., 277 S. Canal St., Chicago, Ill.

**99 BLOCKS—Pillow—Continued.**

Noye Manufacturing Co., John T., Buffalo, N. Y.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, O.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**100 BLOCKS—Spring Buffer—**

Gould Coupler Co., New York.

**101 BLOCKS—Steel Hoisting—**

Boston & Lockport Block Co., Boston, Mass.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Coleman & Sons, Walter, Providence, R. I.  
 Fulton Iron & Engine Works, Detroit, Mich.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Leschen & Sons Rope Co., A., 920 N. Main St., St. Louis, Mo.

**102 BLOCKS—Wooden Hoisting—**

American Hoist & Derrick Co., St. Paul, Minn.  
 Boston & Lockport Block Co., Boston, Mass.  
 Byers Machine Co., John F., Ravenna, O.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Cleveland Block Co., 161 River St., Cleveland, O.  
 Detroit Block Works, Detroit, Mich.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Dubuar Manufacturing Co., Northville, Mich.  
 Jackson Machine Works, Byron, San Francisco, Cal.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Laughlin Co., Thomas, Portland, Me.  
 Leschen & Sons Rope Co., A., St. Louis, Mo.

**103 BLOWERS—**

American Gas Furnace Co., 23 John St., New York.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Giblin & Co., Utica, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Manhattan Machinery Co., 95 Liberty St., New York.  
 Nordyke & Marmon Co., Indianapolis, Ind.  
 Roots & Co., P. H. & F. M., Connersville, Ind.

**104 BLOWERS—Forge—**

American Blower Co., Detroit, Mich.  
 American Gas Furnace Co., 23 John St., New York.  
 Buffalo Forge Co., Buffalo, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Manhattan Machinery Co., 95 Liberty St., New York.  
 National Blower Works, Milwaukee, Wis.  
 Sturtevant Co., B. F., Boston, Mass.

**105 BLOWERS—Hand—**

Buffalo Forge Co., Buffalo, N. Y.  
 Champion Blower & Forge Co., Lancaster, Pa.  
 Empire Forge Co., Lansingburg, N. Y.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Foos Manufacturing Co., Springfield, O.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Star Forge Co., Buffalo, N. Y.  
 Vulcan Iron Works, Wilkesbarre, Pa.

- 106 **BLUE VITRIOL**—  
Michigan Drug Co., Detroit, Mich.  
Western Chemical Co., Denver, Col.
- 107 **BOATS—Car Floats**—  
Jackson & Sharp Co., Wilmington, Del.  
Detroit Boat Works, Detroit, Mich.
- 108 **BOATS—Derrick**—  
Carlin's Sons, Thomas, Allegheny, Pa.
- 109 **BOATS—Dumping Scows**—  
Jackson & Sharp Co., Wilmington, Del.
- 110 **BOATS—Ferry**—  
Atlantic Works, 70 Border St., E. Boston, Mass.  
Columbian Iron Works & Dry Dock Co., Baltimore, Md.  
Continental Iron Works, Calyer & West Sts., Brooklyn, N. Y.  
Detroit Boat Works, Detroit, Mich.  
Detroit Dry Dock Co., Detroit, Mich.  
Harlan & Hollingsworth Co., Wilmington, Del.  
Jackson & Sharp Co., Wilmington, Del.
- 111 **BOATS—Lighters**—  
Atlantic Works, E. Boston, Mass.  
Columbian Iron Works & Dry Dock Co., Baltimore, Md.  
Globe Iron Works Co., Spruce St., Cleveland, O.  
Jackson & Sharp Co., Wilmington, Del.
- 112 **BOATS—Row**—  
Ayers & Son, Samuel, Upper Nyack, N. Y.  
CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
Crane Bros., Westfield, Mass.  
Detroit Boat Works, Detroit, Mich.  
Dreln & Son, Thomas, Wilmington, Del.  
Hepburn, J. W., Toledo, O.  
Racine Boat Manufacturing Co., Racine, Wis.  
Racine Yacht & Boat Works, Racine, Wis.  
Sheldon Co., Orin, 394 Atlantic Ave., Boston, Mass.  
Truscott Boat Manufacturing Co., St. Joseph, Mich.
- 113 **BOATS—Steam**—  
American Steel Barge Co., W. Superior, Wis.  
CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
Delaware River Iron Steam Boat Engine Works, Chester, Pa.  
Detroit Dry Dock Co., Detroit, Mich.  
Jackson & Sharp Co., Wilmington, Del.
- 114 **BOATS—Steam Launches**—  
Clark, Edward S., 392 Atlantic Ave., Boston, Mass.  
CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
Detroit Boat Works, Detroit, Mich.  
Herreshoff Manufacturing Co., Bristol, R. I.  
Marine Iron Works, Station A, Chicago, Ill.  
Nilson Yacht Building Co., Baltimore, Md.  
Racine Boat Manufacturing Co., Racine, Wis.  
Truscott Boat Manufacturing Co., St. Joseph, Mich.

**115 BOATS—Tow Barges—**

American Steel Barge Co., W. Superior, Mich.  
 Jackson & Sharp Co., Wilmington, Del.

**116 BOATS—Tow or Tug—**

Atlantic Works, 70 Border St., E. Boston, Mass.  
 Detroit Boat Works, Detroit, Mich.  
 Detroit Dry Dock Co., Detroit, Mich.  
 Harlan & Hollingsworth Co., Wilmington, Del.  
 Jackson & Sharp Co., Wilmington, Del.  
 Racine Boat Manufacturing Co., Racine, Wis.

**117 BOILERS—Flue—**

Atlas Engine Works, Indianapolis, Ind.  
 Birmingham Boiler Works, Birmingham, Ala.  
 Case Threshing Machine Co., J. I., Racine, Wis.  
 Harrisburg Foundry & Machine Works, Harrisburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Leffel & Co., James, Springfield, O.  
 Moore & White Co., Lehigh Ave., c. N. 15th St., Philadelphia, Pa.  
 Phoenix Iron Works Co., Meadville, Pa.  
 Taunton Locomotive Manufacturing Co. Taunton Mass.  
 Trump Manufacturing Co., Springfield, O.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**118 BOILERS—Horizontal—**

Allis Co., Edward P., Milwaukee, Wis.  
 Atlas Engine Works, Indianapolis, Ind.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 CHANDLER & TAYLOR CO., Indianapolis, Ind.  
 Fall River Machine Co., Fall River, Mass.  
 Kensington Engine Works (Ltd.), 212 Arch St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Leffel & Co., Jas., Springfield, O.  
 Ronalds & Johnson Co., 54 Cliff St., New York.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Taunton Locomotive Manufacturing Co., Taunton Mass.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**119 BOILERS—Locomotive—**

Atlas Engine Works, Indianapolis, Ind.  
 Baldwin Locomotive Works, Philadelphia, Pa.  
 Bay State Iron Works, Erie, Pa.  
 Best, John, Lancaster, Pa.  
 Brooks Locomotive Works, Dunkirk, N. Y.  
 Clayton Air Compressor Works, 28 Cortlandt St., New York.  
 Cooke Locomotive & Machine Co., Paterson, N. J.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Ellicott Machine Co., Baltimore, Md.  
 Fall River Machine Co., Fall River, Mass.  
 Frick Co., Waynesboro, Pa.  
 International Power Co., Providence, R. I.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Lane & Bodley Co., Cincinnati, O.  
 Lidgerwood Manufacturing Co., 96 Liberty St., New York.  
 Manchester Locomotive Works, Manchester, N. H.

119 BOILERS—Locomotive—Continued.

Mason Machine Works, Taunton, Mass.  
 Munroe & Son, R., Pittsburg, Pa.  
 Pittsburg Locomotive & Car Works, Pittsburg, Pa.  
 Portland Co., Portland, Me.  
 Rees & Sons Co., James, Pittsburg, Pa.  
 Richmond Locomotive & Machine Works, Richmond, Va.  
 Rogers Locomotive Co., Paterson, N. J.  
 Ryan-McDonald Manufacturing Co., 44 South St., Baltimore, Md.  
 Schenectady Locomotive Works, Schenectady, N. Y.  
 Springfield Boiler & Mfg. Co., Springfield, Ill.  
 Taunton Locomotive Manufacturing Co., Taunton, Mass.  
 Trump Manufacturing Co., Springfield, O.  
 Vulcan Iron Works, Wilkesbarre, Pa.

120 BOILERS—Portable—

Almy Water Tube Boiler Co., Providence, R. I.  
 Ames Iron Works, Oswego, N. Y.  
 Atlas Engine Works, Indianapolis, Ind.  
 CHANDLER & TAYLOR CO., Indianapolis, Ind.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Forsaith Machine Co., S. C., Manchester, N. H.  
 Freeman & Sons Manufacturing Co., S., Racine, Wis.  
 Frick Co., Waynesboro, Pa.  
 Jackson Machine Works, Byron, San Francisco, Cal.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Lebanon Boiler, Foundry & Machine Co., Lebanon, Pa.  
 Leffel & Co., James, Springfield, O.  
 Marietta Boiler Works, Marietta, O.  
 Munroe & Son, R. Pittsburg, Pa.  
 Oil City Boiler Works (Inc.), Oil City, Pa.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Taunton Locomotive Manufacturing Co., Taunton, Mass.  
 Vulcan Iron Works, Wilkesbarre, Pa.

121 BOILERS—Stationary—

Atlas Engine Works, Indianapolis, Ind.  
 Bass Foundry & Machine Works, Ft. Wayne, Ind.  
 Blandy Machine Co., Zanesville, O.  
 Buckeye Engine Co., Salem, O.  
 CHANDLER & TAYLOR CO., Indianapolis, Ind.  
 Cleveland Ship Building Co., 120 Viaduct, Cleveland, O.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Fall River Machine Co., Fall River, Mass.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Frick Co., Waynesboro, Pa.  
 Greenwald Co., I. & E., 248 E. Pearl St., Cincinnati, O.  
 Harrisburg Foundry & Machine Works, Harrisburg, Pa.  
 Heine Safety Boiler Co., 421 Olive St., St. Louis, Mo.  
 Heipershausen Bros., 43 Tompkins St., New York.  
 Jackson Machine Works, Byron, San Francisco, Cal.  
 Kensington Engine Works (Ltd.), Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Leffel & Co., James Springfield, O.  
 Litchfield Car Works, Litchfield, Ill.  
 Mohr & Sons, John (Inc.), 32 Illinois St., Chicago, Ill.



**121 BOILERS—Stationary—Continued.**

Motter & Sons, George F., York, Pa.  
 Pittsburg Locomotive & Car Works, Pittsburg, Pa.  
 Portland Co., Portland, Me.  
 Richmond Locomotive & Machine Works, Richmond, Va.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Smith Sons Gin & Machine Co., Birmingham, Ala.  
 Taunton Locomotive Manufacturing Co., Taunton, Mass.  
 Tudor Boiler Manufacturing Co., 244 E. Pearl St., Cincinnati, O.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**122 BOILERS—Steam—**

Abendroth & Root Manufacturing Co., 28 Cliff St., New York.  
 Armitage & Herschell Co., N. Tonawanda, N. Y.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Carton Furnace Co., Utica, N. Y.  
 CHANDLER & TAYLOR CO., Indianapolis, Ind.  
 Cole Manufacturing Co., R. D., Newman, Ga.  
 Crescent Iron Works, Springfield, Mo.  
 Enterprise Manufacturing Co., Columbiana, O.  
 Erie City Iron Works, Erie, Pa.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Frick Co., Waynesboro, Pa.  
 Guernsey Heater Manufacturing Co., 74 Franklin St., Boston.  
 Holt Manufacturing Co., Stockton, Cal.  
 Howard Foundry & Machine Works, Philadelphia, Pa.  
 Kehoe & Co., Wm., Savannah, Ga.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Lansing Boiler & Engine Works, Lansing, Mich.  
 Mansfield Machine Works, Mansfield, O.  
 Minneapolis Threshing Machine Co., Minneapolis, Minn.  
 Murray Iron Works Co., Burlington, Ia.  
 Norton, W. D., 6th and Carr Sts., Cincinnati, O.  
 Phoenix Iron Works Co., Meadville, Pa.  
 Racine Boat Manufacturing Co., Racine, Wis.  
 Richmond Machine Works, Richmond, Ind.  
 Sheppard & Co., Isaac A., 1801 N. 4th St., Philadelphia, Pa.  
 Southern Engine & Boiler Works, Jackson, Tenn.

**123 BOILERS—Steel—**

Atlas Engine Works, Indianapolis, Ind.  
 Erie City Iron Works, Erie, Pa.  
 CHANDLER & TAYLOR CO., Indianapolis, Ind.  
 Gem City Boiler Co., Akron, O.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Leffel & Co., James, Springfield, O.  
 Otis Steel Co. (Ltd.), Cleveland, O.  
 SCAIFE & SONS, WM. B., Pittsburg, Pa. See ad. page A 8.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Taunton Locomotive Manufacturing Co., Taunton, Mass.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**124 BOILERS—Tubular—**

Atlas Engine Works, Indianapolis, Ind.  
 Best, John, Lancaster, Pa.  
 CHANDLER & TAYLOR CO., Indianapolis, Ind.

**124 BOILERS—Tubular—Continued.**

Erie City Iron Works, Erie, Pa.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Frick Co., Waynesboro, Pa.  
 Hazleton Boiler Co., 120 Liberty St., New York.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Leffel & Co., James, Springfield, O.  
 Lidgerwood Manufacturing Co., 96 Liberty St., New York.  
 Poole & Son Co., Robert, Baltimore, Md.  
 Ryan-McDonald Manufacturing Co., 44 South St., Baltimore, Md.  
 Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Taunton Locomotive Manufacturing Co., Taunton, Mass.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 York Manufacturing Co., York, Pa.

**125 BOILER BREECHINGS—**

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Midvale Foundry Co. (Ltd.), Allentown, Pa.  
 Wangler Boiler & Sheet Iron Works Co., J. F., St. Louis, Mo.

**126 BOILER CLEANER—**

Hornish Mechanical Boiler Cleaner Co., The, Chicago, Ill.

**127 BOILER COMPOUNDS—**

Delaney Oil & Lubricant Co., Milwaukee, Wis.  
 Gleason Boiler Compound Co., Cleveland, O.  
 Imperial Chemical Co., 324 St. John St., Philadelphia, Pa.  
 Keystone Chemical Manufacturing Co., Camden, N. J.  
 Látofuge Manufacturing Co., 1712 Market St., Philadelphia, Pa.  
 Reliance Oil & Grease Co., Cleveland, O.  
 Stevenson Bros. & Co., 132 S. 2d St., Philadelphia, Pa.  
 Stuart & Co. (Inc.), D. A., 8 State St., Chicago, Ill.  
 Williamson & Co., D. D., 14 Dey St., New York.  
 Winans, J. C., San Francisco, Cal.

**128 BOILER FEEDERS—**

Davis Co., The John, 51 Michigan St., Chicago, Ill.  
 Kitts Manufacturing Co., Oswego, N. Y.  
 Q. & C. Co., 715 Western Union Bldg., Chicago, Ill.

**129 BOILER FRONTS—**

Avery Stamping Co., Cleveland, O.  
 Chicago Stamping Co., 227 S. Green St., Chicago, Ill.  
 Chickasaw Iron Works, Memphis, Tenn.  
 Columbus Manufacturing Co., Columbus, O.  
 Harrisburg Manufacturing & Boiler Co., Harrisburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Munroe & Son, R., Pittsburg, Pa.  
 Paxton & Vierling Iron Works, Omaha, Neb.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**130 BOILER TESTERS—**

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Nathan Manufacturing Co., 92 Liberty St., New York.

- 131 **BOILER TRIMMINGS**—  
 Crosby Steam Gage & Valve Co., Oliver St., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 McGowan Co., John H., 58 Central Ave., Cincinnati, O.
- 132 **BOILER WASHERS**—  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Nathan Manufacturing Co., 92 Liberty St., New York.
- 133 **BOILER WASHERS AND TESTERS**—  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Nathan Manufacturing Co., 92 Liberty St., New York.  
 Rue Manufacturing Co., 215 Race St., Philadelphia, Pa.
- 134 **BOLSTERS—Body**—  
 American Steel Casting Co., Thurlow, Pa.  
 American Steel Foundry Co., St. Louis, Mo.  
 Cloud Steel Truck Co., The, Old Colony Bldg., Chicago, Ill.  
 Franklin Steel Casting Co., Franklin, Pa.  
 Kindl Car Truck Co., The, Old Colony Bldg., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Missouri Railway Equipment Co., St. Louis, Mo.  
 Pressed Steel Car Co., Pittsburg, Pa.  
 Shickle, Harrison & Howard Iron Co., St. Louis, Mo.  
 SIMPLEX RAILWAY APPLIANCE CO., Hammond, New York  
 and Chicago. See ad. page A 8.  
 Standard Car Truck Co., Old Colony Bldg., Chicago, Ill.  
 Sterlingworth Railway Supply Co., Easton, Pa.
- 135 **BOLSTERS—Iron**—  
 Belle City Malleable Iron Co., The, Racine, Wis.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.
- 136 **BOLSTERS—Truck**—  
 American Steel Casting Co., Thurlow, Pa.  
 American Steel Foundry Co., St. Louis, Mo.  
 Cloud Steel Truck Co., The, Old Colony Bldg., Chicago, Ill.  
 Franklin Steel Casting Co., Franklin, Pa.  
 Kindl Car Truck Co., The, Old Colony Bldg., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Missouri Railway Equipment Co., St. Louis, Mo.  
 Pressed Steel Car Co., Pittsburg, Pa.  
 Shickle, Harrison & Howard Iron Co., St. Louis, Mo.  
 SIMPLEX RAILWAY APPLIANCE CO., Hammond, Ind., New  
 York and Chicago.  
 Standard Car Truck Co., Old Colony Bldg., Chicago, Ill.  
 Sterlingworth Railway Supply Co., Easton, Pa.
- 137 **BOLTS**—  
 American Iron & Steel Co., Pittsburg, Pa.  
 AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside  
 front cover.  
 Besly & Co., Charles H., 10 N. Canal St., Chicago, Ill.  
 Bostwick-Braum Co., The, Toledo, O.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Buffalo Bolt Co., Buffalo, N. Y.  
 Cahill, Swift & Co., St. Louis, Mo.

**137 BOLTS—Continued.**

Cambria Steel Co., Philadelphia, Pa.  
 Cincinnati Screw & Tap Co., The, Cincinnati, O.  
 Continental Bolt & Iron Works, 36 Franklin St., Chicago, Ill.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dimond, Thomas, 128 W. 33d St., New York.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Jeffrey Manufacturing Co., Columbus, O.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Lombard Iron Works & Supply Co., Augusta, Ga.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 Marland, Neely & Co. (Ltd.), Pittsburg, Pa.  
 National Bolt, Nut & Rivet Works, Reading, Pa.  
 National Elastic Nut Co., Milwaukee, Wis.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Oliver Iron & Steel Co., Pittsburg, Pa.  
 Peck, Stow & Wilcox Co., Southington, Conn.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Rhode Island Tool Co., Providence, R. I.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Steel Car Forge Co., Bank of Commerce Bldg., Pittsburg, Pa.  
 Upson Nut Co., Unionville, Conn.  
 Whitman & Barnes Manufacturing Co., Akron, O.  
 Wolff & Zwicker Iron Works, Portland, Ore.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**138 BOLTS—Blank—**

American Bolt Co., Lowell, Mass.  
 American Iron & Steel Co., Pittsburg, Pa.  
 Besly & Co., Charles H., 10 N. Canal St., Chicago, Ill.  
 Buffalo Bolt Co., Buffalo, N. Y.  
 Cambria Steel Co., Philadelphia, Pa.  
 Chickasaw Iron Works, Memphis, Tenn.  
 Continental Bolt & Iron Works, 36 N. Franklin St., Chicago, Ill.  
 Dimond, Thomas, 128 W. 33d St., New York.  
 Haskell Co., Wm. H., Pawtucket, R. I.  
 Hoopes & Townsend, 1330 Buttonwood St., Philadelphia, Pa.  
 Jeffrey Manufacturing Co., Columbus, O.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Lombard Iron Works & Supply Co., Augusta, Ga.  
 Marland, Neely & Co. (Ltd.), Pittsburg, Pa.  
 National Bolt, Nut & Rivet Works, Reading, Pa.  
 National Elastic Nut Co., Milwaukee, Wis.  
 Oliver Iron & Steel Co., Pittsburg, Pa.  
 Peck, Stow & Wilcox Co., Southington, Conn.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Rhode Island Tool Co., Providence, R. I.

## 138 BOLTS—Blank—Continued.

Steel Car Forge Co., Bank of Commerce Bldg., Pittsburg, Pa.  
 Sternbergh & Son, J. H., Reading, Pa.  
 Upson Nut Co., Unionville, Conn.  
 Whitman & Barnes Manufacturing Co., Akron, O.  
 Wolff & Zwicker Iron Works, Portland, Ore.

## 139 BOLTS—Boller—

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Scully Steel & Iron Co., 130 Fulton St., Chicago Ill.

## 140 BOLTS—Bridge—

American Bolt Co., Lowell, Mass.  
 American Iron & Steel Co., Pittsburg, Pa.  
 AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Chattanooga Car Foundry Co., Chattanooga, Tenn.  
 Chicago Forge & Bolt Co., 40th St., c. Stewart Ave., Chicago, Ill.  
 Continental Bolt & Iron Works, 36 N. Franklin St., Chicago, Ill.  
 Diamond State Steel Co., Wilmington, Del.  
 Fort Worth Iron Works, Fort Worth, Tex.  
 Kansas City Bolt & Nut Co., Kansas City, Mo.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Michigan Bolt & Nut Works, Detroit, Mich.  
 National Bolt, Nut & Rivet Works, Reading, Pa.  
 Pennsylvania Bolt & Nut Co., Lebanon, Pa.  
 Racine Malleable & Wrought Iron Co., Racine, Wis.  
 Tudor Iron Works, 415 Locust St., St. Louis, Mo.  
 Upson Nut Co., Unionville, Conn.

## 141 BOLTS—Car—

Allison Manufacturing Co., 32d & Walnut Sts., Philadelphia, Pa.  
 American Iron & Steel Co., Pittsburg, Pa.  
 AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Besley & Co., Charles H., 10 N. Canal St., Chicago, Ill.  
 Buffalo Bolt Co., Buffalo, N. Y.  
 Cambria Steel Co., Philadelphia, Pa.  
 Continental Bolt & Iron Works, 36 N. Franklin St., Chicago, Ill.  
 Dimond, Thomas, 128 W. 33d St., New York.  
 Hoopes & Townsend, 1330 Buttonwood St., Philadelphia, Pa.  
 Jeffrey Manufacturing Co., Columbus, O.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Lombard Iron Works & Supply Co., Augusta, Ga.  
 Marland, Neely & Co. (Ltd.), Pittsburg, Pa.  
 National Bolt, Nut & Rivet Works, Reading, Pa.  
 National Elastic Nut Co., Milwaukee, Wis.  
 Oliver Iron & Steel Co., Pittsburg, Pa.  
 Pawtucket Manufacturing Co., Pawtucket, R. I.  
 Peck, Stow & Wilcox Co., Southington, Conn.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Rhode Island Tool Co., Providence, R. I.  
 Steel Car Forge Co., Bank of Commerce Bldg., Pittsburg, Pa.

141 BOLTS—Car—Continued.

Upson Nut Co., Unionville, Conn.  
Whitman & Barnes Manufacturing Co., Akron, O.  
Wolff & Zwicker Iron Works, Portland, Ore.

142 BOLTS—Carriage—

American Iron & Steel Co., Pittsburg, Pa.  
AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
Anderson Iron & Bolt Co., Anderson, Ind.  
Besley & Co., Charles H., 10 N. Canal St., Chicago, Ill.  
Birmingham Bolt & Nut Works, Birmingham, Ala.  
Buffalo Bolt Co., Buffalo, N. Y.  
Cambria Steel Co., Philadelphia, Pa.  
Chicago Forge & Bolt Co., 40th St., c. Stewart Ave., Chicago, Ill.  
Columbus Bolt Works, Columbus, O.  
Continental Bolt & Iron Works, 36 N. Franklin St., Chicago, Ill.  
Cowles & Co., C., New Haven, Conn.  
Dimond, Thomas, 128 W. 33d St., New York.  
Jeffrey Manufacturing Co., Columbus, O.  
KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Lamson & Sessions Co., Cleveland, O.  
Link-Belt Machinery Co., Chicago, Ill.  
Lombard Iron Works & Supply Co., Augusta, Ga.  
Marland, Neely & Co. (Ltd.), Pittsburg, Pa.  
Michigan Bolt & Nut Works, Detroit, Mich.  
Moran Bolt & Nut Manufacturing Co., Main and Florida, St. Louis, Mo.  
National Bolt, Nut & Rivet Works, Reading, Pa.  
Oliver Iron & Steel Co., Pittsburg, Pa.  
Peck, Stow & Wilcox Co., Southington, Conn.  
Pennsylvania Bolt & Nut Co., Lebanon, Pa.  
Republic Iron & Steel Co., Chicago, Ill.  
Rhode Island Tool Co., Providence, R. I.  
Russell & Erwin Manufacturing Co., 45 Chambers St., New York.  
Steel Car Forge Co., Bank of Commerce Bldg., Pittsburg, Pa.  
Sternbergh & Son, J. H., Reading, Pa.  
Upson Nut Co., Unionville, Conn.  
Whitman & Barnes Manufacturing Co., Akron, O.  
Wolff & Zwicker Iron Works, Portland, Ore.

143 BOLTS—Coupling—

Chicago Screw Co., 96 Washington St., Chicago, Ill.  
Hartford Machine Screw Co., Hartford, Conn.  
KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
National Bolt, Nut & Rivet Works, Reading, Pa.  
Pawtucket Manufacturing Co., Pawtucket, R. I.  
Sternbergh & Son, J. H., Reading, Pa.  
Worcester Machine Screw Co., Worcester, Mass.

144 BOLTS—Double Arming—

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4  
Vulcanus Forging Co., The, 965 Hamilton St., Cleveland, O.

## 145 BOLTS—Drift—

Chickasaw Iron Works, Memphis, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Michigan Bolt & Nut Works, Detroit, Mich.  
 Sternbergh & Son, J. H., Reading, Pa.  
 Tudor Iron Works, 415 Locust St., St. Louis, Mo.

## 146 BOLTS—Eye—

Billings & Spencer Co., Hartford, Conn.  
 Hurlbut Co., Racine, Wis.  
 Keystone Drop Forge Co., 20th and Clearfield Sts., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Michigan Bolt & Nut Works, Detroit, Mich.  
 Sternbergh & Son, J. H., Reading, Pa.  
 Vaughan & Bushnell Manufacturing Co., 877, Carroll Ave., Chicago, Ill.  
 Wheeling Hinge Co., Wheeling, W. Va.  
 Williams & Co., J. H., 9 Richards St., Brooklyn, N. Y.

## 147 BOLTS—Key—

Continental Bolt & Iron Works, 36 N. Franklin St., Chicago, Ill.  
 Hoopes & Townsend, 1330 Buttonwood St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Moran Bolt & Nut Manufacturing Co., Main and Florida, St. Louis, Mo.  
 Pawtucket Manufacturing Co., Pawtucket, R. I.  
 Sternbergh & Son, J. H., Reading, Pa.

## 148 BOLTS—Machine—

American Iron & Steel Co., Pittsburg, Pa.  
 AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Besely & Co., Charles H., 10 N. Canal St., Chicago, Ill.  
 Buffalo Bolt Co., Buffalo, N. Y.  
 Cambria Steel Co., Philadelphia, Pa.  
 Continental Bolt & Iron Works, 36 Franklin St., Chicago, Ill.  
 Dimond, Thomas, 128 W. 33d St., Philadelphia, Pa.  
 Jeffrey Manufacturing Co., Columbus, O.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Lombard Iron Works & Supply Co., Augusta, Ga.  
 Marland, Neely & Co. (Ltd.), Pittsburg, Pa.  
 National Bolt, Nut & Rivet Works, Reading, Pa.  
 Oliver Iron & Steel Co., Pittsburg, Pa.  
 Peck, Stow & Wilcox Co., Southington, Conn.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Rhode Island Tool Co., Providence, R. I.  
 Steel Car Forge Co., Bank of Commerce Bldg., Pittsburg, Pa.  
 Upson Nut Co., Unionville, Conn.  
 Vulcanus Forging Co., The, 965 Hamilton St., Cleveland, O.  
 Whitman & Barnes Manufacturing Co., Akron, O.  
 Wolff & Zwicker Iron Works, Portland, Ore.

**149 BOLTS—Patch—**

Hoopes & Townsend, 1330 Buttonwood St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 National Bolt, Nut & Rivet Works, Reading, Pa.  
 Pawtucket Manufacturing Co., Pawtucket, R. I.  
 Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.  
 Sternbergh & Son, J. H., Reading, Pa.  
 Western Automatic Machine Screw Co., Elyria, O.

**150 BOLTS—Phosphor Bronze—**

Phosphor Bronze Smelting Co. (Ltd.), 2200 Washington Ave., Philadelphia, Pa.

**151 BOLTS—Roof—**

Hoopes & Townsend, 1330 Buttonwood St., Philadelphia, Pa.  
 Kansas City Bolt & Nut Co., Kansas City, Mo.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Moore Co., Franklin, Winsted, Conn.  
 Moran Bolt & Nut Manufacturing Co., Main and Florida, St. Louis, Mo.  
 National Bolt, Nut & Rivet Works, Reading, Pa.  
 Pittsburg Screw & Bolt Co., Pittsburg, Pa.  
 Port Chester Bolt & Nut Co., Port Chester, N. Y.  
 Sternbergh & Son, J. H., Reading, Pa.

**152 BOLTS—Stove—**

American Screw Co., Providence, R. I.  
 Chicago Forge & Bolt Co., 40th St., c. Stewart Ave., Chicago, Ill.  
 Columbus Bolt Works, Columbus, O.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Lamson & Sessions Co., Cleveland, O.  
 Michigan Bolt & Nut Works, Detroit, Mich.  
 Reed & Prince Manufacturing Co., Worcester, Mass.  
 Reynolds & Co., New Haven, Conn.  
 Russell & Erwin Manufacturing Co., 45 Chambers St., New York.  
 Upson Nut Co., Unionville, Conn.

**153 BOLTS—Stud—**

American Bolt Co., Lowell, Mass.  
 Chicago Screw Co., 96 W. Washington St., Chicago, Ill.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Hartford Machine Screw Co., Hartford, Conn.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Pawtucket Manufacturing Co., Pawtucket, R. I.  
 Pennsylvania Bolt & Nut Co., Lebanon, Pa.  
 Western Automatic Machine Screw Co., Elyria, O.

**154 BOLTS—Tap—**

American Bolt Co., Lowell, Mass.  
 Haskell Co., Wm. H., Pawtucket, R. I.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Michigan Bolt & Nut Works, Detroit, Mich.  
 Moran Bolt & Nut Manufacturing Co., Main & Fla. Sts., St. Louis.  
 Pawtucket Manufacturing Co., Pawtucket, R. I.  
 Reynolds & Co., New Haven, Conn.



## 155 BOLTS—Track—

Allison Manufacturing Co., 32d & Walnut Sts., Philadelphia, Pa.  
 American Bolt Co., Lowell, Mass.  
 Birmingham Bolt & Nut Works, Birmingham, Ala.  
 Bostwick-Braun Co., The, Toledo, O.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Cambria Steel Co., Philadelphia, Pa.  
 Chicago Forge & Bolt Co., 40th St., c. Stewart Ave., Chicago, Ill.  
 Continental Bolt & Iron Works, 36 N. Franklin St., Chicago, Ill.  
 Crerar, Adams & Co., Chicago, Ill.  
 Diamond State Steel Co., Wilmington, Del.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Illinois Steel Co., Chicago, Ill.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Joseph Iron Co., Isaac, Cincinnati, O.  
 Kansas City Bolt & Nut Co., Kansas City, Mo.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 Michigan Bolt & Nut Works, Detroit, Mich.  
 National Bolt, Nut & Rivet Works, Reading, Pa.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Ogden, J. Edward, 147 Cedar St., New York.  
 Pawtucket Manufacturing Co., Pawtucket, R. I.  
 Pennsylvania Bolt & Nut Co., Lebanon, Pa.  
 Pittsburg Forge & Iron Co., Pittsburg, Pa.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Springfield Iron Co., Springfield, Ill.  
 Sternbergh & Son, J. H., Reading Pa.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis, Mo. See ad. page  
 A 5.  
 Tredegar Co., Richmond, Va.  
 Tudor Iron Works, 415 Locust St., St. Louis, Mo.  
 Upson Nut Co., Unionville, Conn.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 156 BOOKS—Blank—

Ackerman Co., Providence, R. I.  
 Allen, Lane & Scott, 1211 Clover St., Philadelphia, Pa.  
 Althof & Bahls, San Francisco, Cal.  
 Baker-Vawter Co., 1102 Marianna St., Chicago, Ill.  
 Barnard & Co., George D., St. Louis, Mo.  
 Brooks & Co., Cleveland, O.  
 Burford, W. B., Indianapolis, Ind.  
 Burr Index Co., Hartford, Conn.  
 Cameron, Amberg & Co., 71 Lake St., Chicago, Ill.  
 Egbert, Fidler & Chambers, Davenport, Ia.

156 BOOKS—Blank—Continued.

Francis & Loutrel Co., 146 William St., New York.  
 Hicks, Judd & Co., San Francisco, Cal.  
 Marshall & Bruce Co., Nashville, Tenn.  
 Massman & Volmer Co., Davenport, Ia.  
 McDonald & Co., J. S., 601 Graceland Ave., Chicago, Ill.  
 Reynolds & Reynolds Co., Dayton, O.  
 Richmond & Backus Co., The, Detroit, Mich.  
 Shepard Co., Henry O., 214 Monroe St., Chicago, Ill.  
 Swinburne & Co., Minneapolis, Minn.  
 Winn & Hammond, Detroit, Mich.  
 Woodward & Tiernan Co., The, St. Louis, Mo.

157 BOOKS—Letter Copying—

Amberg File & Index Co., 71 Lake St., Chicago, Ill.  
 Bailey Manufacturing Co., Hartford, Conn.  
 Baker-Vawter Co., 1102 Marianna St., Chicago, Ill.  
 Boorum & Pease Co., 103 Duane St., New York.  
 Brooks & Co., Cleveland, O.  
 Burford, W. B., Indianapolis, Ind.  
 Mann Co., Wm., 60 Malden Lane, N. Y.  
 McKim Co., C. S., Cleveland, O.  
 Razall Manufacturing Co., H. G., Milwaukee, Wis.  
 Richmond & Backus Co., The, Detroit, Mich.  
 Shaw Blank Book Co., J. G., 207 Canal St., New York.  
 Woodward & Tiernan Co., The, St. Louis, Mo.

158 BOOKS—Manifold—

Boorum & Pease Co., 103 Duane St., New York.  
 Cosby & Co., Charles E., St. Paul, Minn.  
 Francis & Loutrel Co., 146 William St., New York.  
 Hall Co., J. C., Providence, R. I.  
 Hano Co., Samuel, Boston, Mass.  
 Richmond & Backus Co., Detroit, Mich.

159 BOOKCASES—

American Desk Co., 18 E. Van Buren St., Chicago, Ill.  
 Ballman Cabinet Co., 530 Livingston St., Cincinnati, O.  
 Berkey & Gay Furniture Co., Grand Rapids, Mich.  
 Brown Furniture Co., C. G., Syracuse, N. Y.  
 Central Furniture Co., Rockford, Ill.  
 Globe Co., 1223 W. 8th St., Cincinnati, O.  
 Grand Rapids Chair Co., Grand Rapids, Mich.  
 Hoing, J. E. & A., Evansville, Ind.  
 Kriemer & Bro. Co., 9th & Carr Sts., Cincinnati, O.  
 Luger Furniture Co., North St. Paul, Minn.  
 Newburg Furniture Co., 37 Lander St., Newburg, N. Y.  
 Paine Furniture Co., 48 Canal St., Boston, Mass.  
 Scarritt, Comstock & Co., St. Louis, Mo.  
 Yawman & Erbe Manufacturing Co., Rochester, N. Y.

160 BORERS—Carpenters' Hand—

Buckeye Manufacturing Co., Anderson, Ind.  
 Jennings & Co., C. E., 79 Reade St., New York.  
 Kellogg, William P., Troy, N. Y.  
 Millers Falls Co., Millers Falls, Mass.  
 Snell Manufacturing Co., Fiskdale, Mass.

**161 BOXES—Coal Car—**

Williams & Son, E. A., Jersey City, N. J.

**162 BOXES—Journal—**

American Wood Working Machine Co., 141 Broadway, New York.  
 Brown Co., A. & F., 25 Dey St., New York.  
 Chester Steel Casting Co., 407 Library St., Philadelphia, Pa.  
 Chickasaw Iron Works, Memphis, Tenn.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Fulton Foundry Co., Cleveland, O.  
 Fulton Iron & Engine Works, Detroit, Mich.  
 Gould Coupler Co., New York.  
 Great Western Manufacturing Co., Leavenworth, Kas.  
 Hewitt Manufacturing Co., 21 Ontario St., Chicago, Ill.  
 Lefel & Co., James, Springfield, O.  
 McCORD & CO., 1475 Old Colony Bldg., Chicago, Ill.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 Poole & Son Co., Robert, Baltimore, Md.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Stillwell-Blerce & Smith-Valle Co., Dayton, O.

**163 BOXES—Oil—**

Missouri Railway Equipment Co., Union Trust Bldg., St. Louis.

**164 BOXES—Paper—**

American Paper Co., Nashville, Tenn.  
 Baldwin & Sons, Eli, 1 Mission Place, New York.  
 BIRD & SON, F. W., E. Walpole, Mass. See ad. page A 3.  
 Bridgeport Paper Box Co., Bridgeport, Conn.  
 Crompton & Co., John, 29 N. 4th St., Philadelphia, Pa.  
 Dayton Paper Novelty Co., Dayton, O.  
 Dennison Manufacturing Co., 26 Franklin St., Boston, Mass.  
 Gottleib, Jacob, 17 N. Liberty St., Cumberland, Md.  
 Humphrey, H. W., Unionville, Conn.  
 Moser Cigar & Paper Box Co., 208 Elm St., St. Louis, Mo.  
 National Folding Box & Paper Co., New Haven, Conn.  
 National Metal Edge Box Co., Cherry St., Philadelphia, Pa.  
 Randolph Paper Boxes, Richmond, Va.  
 Ritchie & Co. (Inc.), W. C., 203 S. Green St., Chicago, Ill.  
 Steinmetz, C., Wheeling, W. Va.

**165 BOX LIDS—Journal—**

Kinzer & Jones Manufacturing Co., Pittsburg, Pa.  
 McCORD & CO., 1475 Old Colony Bldg., Chicago, Ill.  
 Q. & C. Co., 700 Western Union Bldg., Chicago, Ill.

**166 BRACES—Bit—**

Bostwick-Braun Co., The, Toledo, O.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Butterfield & Co., Derby Line, Vt.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Chantrell Tool Co., Reading, Pa.  
 Crerar, Adams & Co., Chicago, Ill.  
 Du Mont Tool Co., 63 Chandler St., Buffalo, N. Y.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.

166 BRACES—Bit—Continued.

Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 Mayhew & Co., H. H., Shelburne Falls, Mass.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Peck, Stow & Wilcox Co., Southington, Conn.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Standard Tool Co., Cleveland, O.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

167 BRACES—Boller—Steel—

Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.

168 BRACES—Cross Arm—

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Vulcanus Forging Co., The, 965 Hamilton St., Cleveland, Ohio.

169 BRACES—Rail—

Ajax Forge Co., 138 Jackson Boulevard, Chicago, Ill.  
 Atlas Railway Supply Co., 1654 Monadnock Block, Chicago, Ill.  
 Beaver Dam Malleable Iron Co., Beaver Dam, Wis.  
 Buhl Malleable Co., Detroit, Mich.  
 Campbell Frog Works, Bucyrus, O.  
 Cambria Steel Co., Philadelphia, Pa.  
 Continuous Rail Joint Co. of America, 908 Lawyers Bldg.,  
 Newark, N. J.  
 Dayton Malleable Iron Co., Dayton, O.  
 Diamond State Steel Co., Wilmington, Del.  
 ELLIOT FROG & SWITCH CO., E. St. Louis, Ill. See ad. page  
 A 5.  
 Johnston Railroad Frog & Switch Co., Chester, Pa.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 MCCONWAY & TORLEY CO., Pittsburg, Pa. See ad. opp. 1st  
 page of list.  
 McGuire Manufacturing Co., Chicago, Ill.  
 MORDEN FROG & CROSSING WORKS, THE ROOKERY, Chi-  
 cago, Ill. See ad. page A 5.  
 National Switch & Signal Co., Easton, Pa.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pettibone, Mulliken & Co., 725 Marquette Bldg., Chicago, Ill.  
 Railroad Supply Co., Bedford Bldg., Chicago, Ill.  
 Republic Iron & Steel Co., Stock Exchange Bldg., Chicago, Ill.  
 Weber Railway Joint Mfg. Co., 71 Broadway, New York.  
 Weir Frog Co., Cincinnati, O.

170 BRACKETS—Door—Freight Car—

Chicago Grain Door Co., Chicago, Ill.  
 McGuire Manufacturing Co., 122 N. Sangamon St., Chicago, Ill.

**171 BRACKETS—Wall—Machine—**

Brown Co., A. & F., 25 Dey St., New York.  
Cresson Co., George V., 18th St. and Allegheny Ave., Philadelphia, Pa.  
Dickson Manufacturing Co., Scranton, Pa.  
Medart Patent Pulley Co., 277 S. Canal St., Chicago, Ill.  
Poole & Son Co., Robert, Baltimore, Md.

**172 BRADS—**

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad inside front cover.  
Atlas Tack Corporation, Taunton, Mass.  
Chicago Tack Co., 7800 Woodlawn St., Chicago, Ill.  
Cumberland Nail & Iron Co., Philadelphia, Pa.  
Grand Crossing Tack Co., Grand Crossing, Ill.  
Milwaukee Tack Co., Milwaukee, Wis.  
Tower Manufacturing Co., Madison, Ind.

**173 BRADS—Wire—**

American Screw Co., Providence, R. I.  
AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad inside front cover.  
H. P. Nail Co., Cleveland, O.  
Russell & Erwin Manufacturing Co., 45 Chambers St., New York.  
Wire Goods Co., Worcester, Mass.  
Worcester Wire Co., Worcester, Mass.

**174 BRAKES—Automatic Air—**

Boyden Brake Co., Baltimore, Md.  
Christenson Engineering Co., Milwaukee, Wis.  
Magann Air Brake Co., G. P., Detroit, Mich.  
New York Air Brake Co., 66 Broadway, New York.  
Standard Air Brake Co., 168 Broadway, New York.  
WESTINGHOUSE AIR BRAKE CO., Pittsburg, Pa. See ad inside back cover.

**175 BRAKES—Car—**

Bemis Car Box Co., Springfield, Mass.  
Brill Co., J. G., 62d St. and Woodland Ave., Philadelphia, Pa.  
Christenson Engineering Co., Milwaukee, Wis.  
Consolidated Ry. Electric Lighting & Equipment Co., 100 Broadway, New York.  
General Electric Co., Schenectady, N. Y.  
Magann Air Brake Co., G. P., Detroit, Mich.  
McGuire Manufacturing Co., 122 N. Sangamon St., Chicago, Ill.  
New York Air Brake Co., 66 Broadway, New York.  
Stephenson Co., John (Ltd.), 47 E. 27th St., New York.  
Sterling Supply & Manufacturing Co., 141 E. 25th St., New York.  
Van Dorn & Dutton Co., Cleveland, O.  
WESTINGHOUSE AIR BRAKE CO., Pittsburg, Pa. See ad inside back cover.

**176 BRAKES—Compressed Air—**

New York Air Brake Co., 66 Broadway, New York.

- 177 **BRAKES—Locomotive—**  
 New York Air Brake Co., 66 Broadway, New York.  
 WESTINGHOUSE AIR BRAKE CO., Pittsburg, Pa. See ad. in-  
 side back cover.
- 178 **BRAKES—Locomotive—Air—**  
 New York Air Brake Co., 66 Broadway, New York.  
 WESTINGHOUSE AIR BRAKE CO., Pittsburg, Pa. See ad. in-  
 side back cover.
- 179 **BRAKES—Steam—**  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 WESTINGHOUSE AIR BRAKE CO., Pittsburg, Pa. See ad. in-  
 side back cover.
- 180 **BRAKES—Vacuum—**  
 New York Air Brake Co., 66 Broadway, New York.  
 WESTINGHOUSE AIR BRAKE CO., Pittsburg, Pa. See ad. in-  
 side back cover.
- 181 **BRAKES—Vacuum—Automatic—**  
 New York Air Brake Co., 66 Broadway, New York.  
 WESTINGHOUSE AIR BRAKE CO., Pittsburg, Pa. See ad. in-  
 side back cover.
- 182 **BRAKE ADJUSTERS—**  
 Q. & C. Co., 700 Western Union Bldg., Chicago, Ill.
- 183 **BRAKE BEAMS—**  
 Allison Manufacturing Co., S. 32d and Walnut Sts., Philadelphia.  
 Belle City Malleable Iron Co., Racine, Wis.  
 Chicago Railway Equipment Co., Chicago, Ill.  
 Interchangeable Brake Beam Co., St. Louis, Mo.  
 Kewanee Manufacturing Co., Jersey City, N. J.  
 (Monarch and Solid)—MONARCH BRAKE BEAM CO. (Ltd.),  
 THE, Detroit, Mich. See ad. page A 1.  
 Oval Brake Beam Co., S. 32d and Chestnut Sts., Philadelphia, Pa.  
 Pressed Steel Car Co., Pittsburg, Pa.  
 Sterlingworth Railway Supply Co., Easton, Pa.  
 Western Railway Equipment Co., St. Louis, Mo.
- 184 **BRAKE EQUIPMENT—Air—**  
 Dayton Manufacturing Co., Dayton, O.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 New York Air Brake Co., 66 Broadway, New York.  
 Vulcanus Forging Co., The, 965 Hamilton St., Cleveland, O.  
 WESTINGHOUSE AIR BRAKE CO., Pittsburg, Pa. See ad. in-  
 side back cover.
- 185 **BRAKE FITTINGS—**  
 Cleveland City Forge and Iron Co., Cleveland, O.  
 Crane Co., Chicago, Ill.  
 Dayton Malleable Iron Co., The, Dayton, O.  
 Forsyth Manufacturing Co., Buffalo, N. Y.  
 Steel Car Forge Co., Bank of Commerce Bldg., Pittsburg, Pa.

**186 BRAKE SHOES—**

Allison Manufacturing Co., S. 32d and Walnut Sts., Philadelphia.  
 American Steel Casting Co., Thurlow, Pa.  
 Barnum, Richardson Co., Lime Rock, Conn.  
 Beaver Dam Malleable Iron Co., Beaver Dam, Wis.  
 Bethlehem Foundry & Machine Co., S. Bethlehem, Pa.  
 Brill Co., J. G., 62d St. and Woodland Ave., Philadelphia, Pa.  
 Cornell, J. B. & J. M., 26th St. and 11th Ave., New York.  
 Corning Brake Shoe Co., Corning, N. Y.  
 Drexel Railway Supply Co., Fisher Bldg., Chicago, Ill.  
 Fulton Foundry Co., Cleveland, O.  
 Johnston Railroad Frog & Switch Co., Chester, Pa.  
 Kinzer & Jones Manufacturing Co., Pittsburg, Pa.  
 Lappin Brake Shoe Co., Bloomfield, Essex Co., N. J.  
 Manufacturers' Railway Supply Co., Fisher Bldg., Chicago, Ill.  
 McKee, Fuller & Co., Catsasauqua, N. Y.  
 (Ross-Meehan) Ramapo Iron Works, Hillburn, N. Y.  
 (Diamond S.) Sargent Co., 675 Old Colony Bldg., Chicago, Ill.  
 (Corning) Simpson & Collier, Old Colony Bldg., Chicago, Ill.  
 Streeter Brake Shoe Co., 4013 Wentworth Ave., Chicago, Ill.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis, Mo. See ad. page  
 A 5.  
 Union Iron Works Co., Selma, Ala.  
 Universal Car Bearing Co., Monadnock Block, Chicago, Ill.  
 Vulcan Iron Works Co., Toledo, O.  
 Wendell & MacDuffie, 26 Cortlandt St., New York.

**187 BRASS—**

American Brass Co., Waterbury, Conn.  
 Ansonia Brass & Copper Co., 19 Cliff St., New York.  
 Bridgeport Brass Co., Bridgeport, Conn.  
 Bridgeport Copper Co., Bridgeport, Conn.  
 Bristol Brass & Clock Co., Bristol, Conn.  
 Crown Smelting Co., Chester, Pa.  
 Eaton, Cole & Burnham Co., 253 Broadway, New York.  
 Phelps, Dodge & Co., 11 Cliff St., New York.  
 Waterbury Brass Co., Waterbury, Conn.

**188 BRASS—Bar—**

Ansonia Brass & Copper Co., 19 Cliff St., New York.  
 Bridgeport Brass Co., Bridgeport, Conn.  
 Detroit Copper & Brass Rolling Mills, Detroit, Mich.

**189 BRASS—Ingot—**

Great Western Smelting & Refining Co., Chicago, Ill.  
 Reeves & Son, Paul S., Philadelphia, Pa.

**190 BRASS—Rods—**

Ansonia Brass & Copper Co., 19 Cliff St., New York.  
 Bridgeport Brass Co., Bridgeport, Conn.  
 Detroit Copper & Brass Rolling Mills, Detroit, Mich.  
 Judd & Co., H. L., 87 Chambers St., New York.  
 Scoville Manufacturing Co., Waterbury, Conn.  
 Waterbury Brass Co., Waterbury, Conn.

191 BRASS—Roll—

Ansonia Brass & Copper Co., 19 Cliff St., New York.  
 Chicago Brass Co., 76 Monroe St., Chicago, Ill.  
 Detroit Copper & Brass Rolling Mills, Detroit, Mich.  
 Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
 Manhattan Brass Co., 338 E. 28th St., New York.  
 Scovill Manufacturing Co., Waterbury, Conn.

192 BRASS—Sheet—

American Brass Co., Waterbury, Conn.  
 Ansonia Brass & Copper Co., 19 Cliff St., New York.  
 Bridgeport Brass Co., Bridgeport, Conn.  
 Chicago Brass Co., 76 Monroe St., Chicago, Ill.  
 Detroit Copper & Brass Rolling Mills, Detroit, Mich.  
 Grand Rapids Brass Co., Grand Rapids, Mich.  
 Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
 Manhattan Brass Co., 338 E. 28th St., New York.  
 Rome Brass & Copper Co., Rome, N. Y.  
 Waterbury Brass Co., Waterbury, Conn.

193 BRASSES—Car Journal—

Acme Journal Bearing Co., 47 S. Canal St., Chicago, Ill.  
 Atlantic Brass Co. (Inc.), 192 Broadway, New York.  
 Bierbaum & Merrick Metal Co., The Prudential Bldg., Buffalo.  
 Damascus Bronze Co., Pittsburg, Pa.  
 Fulton Iron & Engine Works, Detroit, Mich.  
 Magnolia Metal Co., 10 Pacific Ave., Chicago, Ill.  
 Meneely & Son, George R., Watervliet, N. Y.  
 Missouri Car & Foundry Co., St. Louis, Mo.  
 Simpson & Collier, Old Colony Bldg., Chicago, Ill.  
 Spiral Journal Bearing Co., Baden, St. Louis, Mo.  
 U. S. Bronze Co., Cleveland, O.

194 BRICK—

Aldridge Bros. & Co., Dutchess Jct., N. Y.  
 Allison & Co., B. J., Haverstraw, N. Y.  
 Alsip Brick Co., 138 Washington St., Chicago, Ill.  
 Classen & Co., H. W., Baltimore, Md.  
 Columbus Brick & Terra Cotta Co., Columbus, O.  
 CONSOLIDATED COAL & LIME CO., Indianapolis, Ind.  
 Equitable Brick Manufacturing Co., Pine St., Philadelphia, Pa.  
 Evansville Pressed Brick Co., Evansville, Ind.  
 Fernwood Lumber Co., Fernwood, Miss.  
 Fisher's Island Brick Manufacturing Co., New London, Conn.  
 Fowler & Co., D., Jr., Haverstraw, N. Y.  
 Gainesville Pressed Brick Co., Gainesville, Tex.  
 Goodland Tile Co., Goodland, Ind.  
 Hampden Brick Works, Springfield, Mass.  
 Jarden Brick Co., 26th St., Philadelphia, Pa.  
 Louisville Drain Tile Co., Bishof, Ky.  
 Mackey Brick & Tile Manufacturing Co., San Antonio, Tex.  
 Mehrhof Brick Co., Little Ferry, N. J.  
 Ogden Brick Co., Binghampton, N. Y.  
 Patent Brick Co., San Francisco, Cal.  
 Paxson Co., J. W., 1021 N. Delaware Ave., Philadelphia, Pa.



## 194 BRICK—Continued.

Peerless Brick Co., 24 S. 7th St., Philadelphia, Pa.  
 Perth Amboy Terra Cotta Co., Perth Amboy, N. J.  
 Rochester Brick & Tile Manufacturing Co., Rochester, N. Y.  
 Ruka Bros. Manufacturing Co. (Ltd.), Boscobel, Wis.  
 Sayre & Fisher Co., Sayreville, N. J.  
 Summerville Brick Works, Summerville, S. C.  
 Tennessee Brick Co., Memphis, Tenn.  
 U. S. Encaustic Tile Works, Indianapolis, Ind.  
 Valentine & Bros., M. D., Woodbridge, N. J.

## 195 BRICK—Cement—

White Marble Lime Co., Manistique, Mich.

## 196 BRICK—Emery—

Abrasive Material Co., The, S. 72d and Upland, Philadelphia, Pa.  
 Kirby, Wm. M., Pittsburg, Pa.

## 197 BRICK—Enamelled—

Birmingham Fire Brick Works, Birmingham, Ala.  
 Hydraulic Pressed Brick Co., Union Trust Bldg., St. Louis, Mo.  
 Merrimac Ceramic Co., Newburyport, Mass.  
 Somerset Enamelled Brick Co., Somerset, Mass.  
 Tiffany Pressed Brick Co., Baltimore, Md.

## 198 BRICK—Fire—

AMERICAN CLAY MANUFACTURING CO. OF NEW JERSEY,

2d Nat'l Bank Bldg., Pittsburg, Pa. See ad. page A 1.

Auld & Conger, Cleveland, O.

Birmingham Fire Brick Works, Birmingham, Ala.

Bolivar Fire Brick Co., Pittsburg, Pa.

Borgner, Cyrus, N. 23d St., Philadelphia, Pa.

Calumet Fire Clay Co., Calumet, O.

Cincinnati Sewer Pipe Co., Elm and Water Sts., Cincinnati, O.

Clark & Sons, N., San Francisco, Cal.

CONSOLIDATED COAL & LIME CO., Indianapolis, Ind.

Denver Fire Clay Co., Denver, Col.

Dover Fire Brick Co., Cleveland, O.

Dunbar Fire Brick Co., Dunbar, Pa.

Evens & Howard Fire Brick Co., St. Louis, Mo.

GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.

See ad. page A 2.

Gladding, McBean & Co., Lincoln, Cal.

Hall & Sons, Buffalo, N. Y.

Iowa Pipe & Tile Co., Des Moines, Ia.

Laclede Fire Brick Manufacturing Co., St. Louis, Mo.

Manown Manufacturing Co., Park Bldg., Pittsburg, Pa.

Maurer & Son, Henry, 420 E. 23d St., New York.

McMahon, Porter & Co. (Inc.), New Cumberland, W. Va.

Montague & Co., Chattanooga, Tenn.

Newton & Co., Albany, N. Y.

Obermayer Co., S., Cincinnati, O.

Pacific Clay Manufacturing Co., Los Angeles, Cal.

Parker-Russell Mining & Manufacturing Co., Pine St., St. Louis.

Perth Amboy Terra Cotta Co., Perth Amboy, N. J.

Philadelphia Fire Brick Works, 2306 Vine St., Philadelphia, Pa.

**198 BRICK—Fire—Continued.**

Pittsburg Clay Manufacturing Co., New Brighton, Pa.  
 Royal Sewer Pipe & Fire Brick Co., Akron, O.  
 Salamander Works, 39 Cortlandt St., New York.  
 Savage Fire Brick Co., Keystone Jct., Pa.  
 Stevens' Sons Co., H., Macon, Ga.  
 Stuart Fire Brick Co., Conestoga Bldg., Pittsburg, Pa.  
 Vrooman, H. S., 220 W. 20th St., Chicago, Ill.  
 Walker Clay Manufacturing Co., N. U., Walkers, O.  
 Weber Co., Adam, 633 E. 5th St., New York.

**A198 BRICK—Fire—Locomotive Arch—**

GARDEN CITY SAND CO., Security Bldg., Chicago, Ill. See ad.  
 page A 2.

**199 BRICK—Fire Proof—Hollow—**

AMERICAN CLAY MANUFACTURING CO. OF NEW JERSEY,  
 Pittsburg, Pa. See ad. page A 1.  
 Birmingham Fire Brick Works, Birmingham, Ala.  
 Boynton, C. W., Sewaren, N. J.  
 Gladding, McBean & Co., Lincoln, Cal.  
 Lyth & Sons, John, Buffalo, N. Y.  
 Maurer & Son, Henry, 420 E. 23d St., New York.  
 Pioneer F. P. Construction Co., 1515 Marquette Bldg., Chicago,  
 Ill.

**A199 BRICK—Fire—Special Shape—**

GARDEN CITY SAND CO., Security Bldg., Chicago, Ill. See ad.  
 page A 2.

**200 BRICK—Furnace—**

Park Fire Clay Co., Rochester, Pa.  
 Pittsburg Clay Pot Co., Allegheny, Pa.  
 Presbrey Stove Lining Co., Taunton, Mass.  
 Welch, Gloninger & Maxwell, Pittsburg, Pa.

**201 BRICK—Glazed—**

AMERICAN CLAY MANUFACTURING CO. OF NEW JERSEY,  
 Pittsburg, Pa. See ad. page A 1.  
 Dixon-Woods Co., 30th & Jane Sts., Pittsburg, Pa.

**202 BRICK—Hollow—**

AMERICAN CLAY MANUFACTURING CO. OF NEW JERSEY,  
 Pittsburg, Pa. See ad. page A 1.  
 Boynton, C. W., Sewaren, N. J.  
 Maurer & Son (Inc.), Henry, 420 E. 23d St., New York.  
 Montague & Co., Chattanooga, Tenn.  
 Pioneer F. P. Construction Co., 1515 Marquette Bldg., Chicago.

**203 BRICK—Ornamental—**

Burch & Co., H. O., New London, Conn.  
 Burns, Russell & Co., Baltimore, Md.  
 Chicago Hydraulic Pressed Brick Co., Chamber of Commerce  
 Bldg., Chicago, Ill.  
 Eastern Hydraulic Press Brick Co., Winslow, N. J.  
 Findlay Hydraulic Press Brick Co., Findlay, O.

**203 BRICK—Ornamental—Continued.**

Glens Falls Terra Cotta & Brick Co., Glens Falls, N. Y.  
 Harbison & Walker Co., Pittsburg, Pa.  
 Hydraulic Press Brick Co., St. Louis, Mo.  
 Kansas City Hydraulic Press Brick Co., Kansas City, Mo.  
 LaSalle Pressed Brick Co., LaSalle, Ill.  
 Omaha Hydraulic Press Brick Co., Omaha, Neb.  
 Peerless Brick Co., 24 S. 7th St., Philadelphia, Pa.  
 Perth Amboy Terra Cotta Co., Perth Amboy, N. J.  
 Powhatan Clay Manufacturing Co., Richmond, Va.  
 Union Pressed Brick Works, St. Louis, Mo.  
 Washington Hydraulic Press Brick Co., Washington, D. C.

**204 BRICK—Porous—**

Boynton, C. W., Sewaren, N. J.

**205 BRICK—Pressed—**

AMERICAN CLAY MANUFACTURING CO. OF NEW JERSEY,  
 Pittsburg, Pa. See ad. page A 1.  
 Birmingham Fire Brick Works, Birmingham, Ala.  
 Burch & Co., H. O., New London, Conn.  
 Burns, Russell & Co., Baltimore, Md.  
 Chicago Hydraulic Pressed Brick Co., Chamber of Commerce  
 Bldg., Chicago, Ill.  
 CONSOLIDATED COAL & LIME CO., Indianapolis, Ind.  
 Findlay Hydraulic Press Brick Co., Findlay, Ohio.  
 Gladding, McBean & Co., Lincoln, Cal.  
 Glens Falls Terra Cotta & Brick Co., Glens Falls, N. Y.  
 Hydraulic Press Brick Co., St. Louis, Mo.  
 Kansas City Hydraulic Press Brick Co., Kansas City, Mo.  
 LaSalle Pressed Brick Co., LaSalle, Ill.  
 Omaha Hydraulic Press Brick Co., Omaha, Neb.  
 Peerless Brick Co., 24 S. 7th St., Philadelphia, Pa.  
 Perth Amboy Terra Cotta Co., Perth Amboy, N. J.  
 Staten Island Clay Co., Woodbridge, N. J.  
 Union Press Brick Works, St. Louis, Mo.  
 Washington Hydraulic Press Brick Co., Washington, D. C.

**206 BRICK—Sewer—**

AMERICAN CLAY MANUFACTURING CO. OF NEW JERSEY,  
 Pittsburg, Pa. See ad. page A 1.  
 Equitable Brick Manufacturing Co., 60th and Pine Sts., Phila-  
 delphia, Pa.  
 Fisher's Island Brick Manufacturing Co., New London, Conn.

**207 BRICK—Street Pavement—**

AMERICAN CLAY MANUFACTURING CO. OF NEW JERSEY,  
 2d Nat'l Bank Bldg., Pittsburg, Pa. See ad. page A 1.  
 Birmingham Fire Brick Works, Birmingham, Ala.  
 Park Fire Clay Co., Rochester, Pa.  
 Summerville Fire Brick Works, Summerville, S. C.  
 Terre Haute Brick & Pipe Co., Terre Haute, Ind.

208 BRIDGES—

American Bridge Co., 100 Broadway, New York.  
 California Bridge Co., San Francisco, Cal.  
 Carroll-Porter Boiler & Tank Co., Pittsburg, Pa.  
 Chicago Forge & Bolt Co., 40th St., Chicago, Ill.  
 Detroit Bridge & Iron Works, Detroit, Mich.  
 Indianapolis Switch & Frog Co., Springfield, O.  
 Kansas City Bridge Co., Kansas City, Mo.  
 King Bridge Co., Cleveland, O.  
 Lombard Iron Works & Supply Co., Augusta, Ga.  
 Missouri Valley Bridge & Iron Works, Leavenworth, Kas.  
 New Jersey Steel & Iron Co., Trenton, N. J.  
 New York Dredging Co., World Bldg., New York.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Penn Bridge Co., Beaver Falls, Pa.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
 Portland Co., Portland, Me.  
 Rarig Engineering Co., Columbus, O.  
 Ritter-Conley Manufacturing Co., Pittsburg, Pa.  
 Roebling's Sons Co., John A., 117 Liberty St., New York.  
 Rogers Iron Co., Springfield, O.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Scherzer Rolling Lift Bridge Co., Monadnock Block, Chicago, Ill.  
 Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia.  
 Wolff & Zwicker Iron Works, Portland, Ore.

209 BRIDGE FOUNDATIONS—

Iron Substructure Co., Columbus, O.  
 Missouri Valley Bridge & Iron Works, Leavenworth, Kas.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.

210 BRIDGE GUARDS—Overhanging—

Meyers Manufacturing Co., Fred J., Hamilton, O.

211 BRONZE —

Ajax Metal Co., 46 Richmond St., Philadelphia, Pa.  
 Bradley & Hubbard Manufacturing Co., Meriden, Conn.  
 Bridgeport Deox. Bronze & Metal Co., Bridgeport, Conn.  
 Chicago Brass Co., 76 Monroe St., Chicago, Ill.  
 Crown Smelting Co., Chester, Pa.  
 Damascus Bronze Co. (Ltd.), Pittsburg, Pa.  
 Phosphor Bronze Smelting Co. (Ltd.), 2200 Wash. Ave., Philadelphia, Pa.  
 Plume & Atwood Manufacturing Co., Waterbury, Conn.  
 Q. & C. Co., Chicago, Ill.

212 BRONZE—Ingots—

Damascus Bronze Co., Pittsburg, Pa.  
 Fulton Iron & Engine Works, Detroit, Mich.  
 U. S. Bronze Co., The, Cleveland, O.

**214 BROOMS—Frog and Switch—**

Bostwick-Braun Co., The, Toledo, O.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Paxson Co., J. W., 1021 N. Delaware Ave., Philadelphia Pa.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**215 BROOMS—Household—**

American Broom & Brush Co., Amsterdam, N. Y.  
 Bancroft, George W., New Hartford, Conn.  
 Barron & Co., J. S., 160 Duane St., New York.  
 Cross, H. B., Akron, O.  
 Grand Rapids Brush Co., Grand Rapids, Mich.  
 Howard Co., E. D., Columbus, O.  
 Lee Broom & Duster Co., Davenport, Ia.  
 Merkle-Wiley Broom Co., Paris, Ill.  
 Otis & Co., John, Richmond, Va.  
 Perry Broom Manufacturing Co., Indianapolis, Ind.  
 Wendling, John, Jr., New Orleans, La.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**216 BROOMS—Rattan—**

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Osborn Manufacturing Co., The, Cleveland, O.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**217 BROOMS—Stable and Street—**

Amsterdam Broom Co., Amsterdam, N. Y.  
 Austin Manufacturing Co., F. C., Harvey, Ill.  
 Barbee Wire & Iron Works, 44 Dearborn St., Chicago, Ill.  
 Bromwell Brush & Wire Goods Co., 429 Walnut St., Cincinnati, O.  
 Howard Co., E. D., Columbus, O.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Lee Broom & Duster Co., Davenport, Ia.  
 Merkle-Wiley Broom Co., Paris, Ill.  
 Morris McGraw Woodenware Co. (Ltd.), New Orleans, La.  
 Pollock Brush Co., Easton, Pa.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**218 BROOMS—Steel Scraper—**

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Obermayer Co., S., Cincinnati, O.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**219 BROOMS—Steel Wire—**

Gilbert & Bennett Manufacturing Co., 44 Cliff St., New York.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Meyers Manufacturing Co., Fred J., Hamilton, O.  
 Obermayer Co., S., Cincinnati, O.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**220 BROOMS—Steel Wire—Track—**

Bostwick-Braun Co., The, Toledo, O.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
James & Co. (Inc.), Chattanooga, Tenn.  
KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
Obermayer Co., S., Cincinnati, O.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**221 BROOMS—Whisk—**

Amsterdam Broom Co., Amsterdam, N. Y.  
Harrison & Dickson, Los Angeles, Cal.  
Howard Co., E. D., Columbus, O.  
Lee Broom & Duster Co., Davenport, Ia.  
Merkle-Wiley Broom Co., Paris, Ill.  
Perry Broom Manufacturing Co., Indianapolis, Ind.  
Wallace & Sons, Manufacturing Co., Wallingford, Conn.  
White, Valentine & Co., Urbana, O.  
WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**222 BRUSHES—Car Scrubs and Washers—**

Adams & Co., J. J., 128 Greenpoint Ave., Brooklyn, N. Y.  
Bradley & Smith, 251 Pearl St., New York.  
Grand Rapids Brush Co., Grand Rapids, Mich.  
Hanlon & Goodman, 57 Fulton St., New York.  
KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Smith & Son, J. F., 116 Chambers St., New York.  
Standard Brush Co., New Hartford, Conn.  
Whiting & Son Co., John L., Boston, Mass.  
WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**223 BRUSHES—Dust—**

Adams & Co., J. J., 128 Greenpoint Ave., Brooklyn, N. Y.  
Bradley & Smith, 251 Pearl St., New York.  
Flynn Bros., Lansingburg, N. Y.  
Grand Rapids Brush Co., Grand Rapids, Mich.  
Guider & Co., G. C., 11½ Frederick St., Baltimore Md.  
KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Pollock Brush Co., Easton, Pa.  
WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.  
Wooster Brush Works, Wooster, O.

**224 BRUSHES—Foundry—**

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Paxson Co., J. W., 1021 N. Delaware Ave., Philadelphia, Pa.  
Wright & Colton Wire Cloth Co., Worcester, Mass.  
WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**225 BRUSHES—Glue—**

Bradley & Smith, 251 Pearl St., New York.  
 Hanlon & Goodman, 57 Fulton St., New York.  
 Smith & Son, J. F., 116 Chambers St., New York.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**226 BRUSHES—Kalsomine—**

Bradley & Smith, 251 Pearl St., New York.  
 Hanlon & Goodman, 57 Fulton St., New York.  
 Lowe Bros. Co., Dayton, O.  
 Whiting & Son Co., J. L., Boston, Mass.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.  
 Wooster Brush Works, Wooster, O.

**227 BRUSHES—Machine—**

Hanlon & Goodman, 57 Fulton St., New York.  
 Obermayer Co., S., Cincinnati, O.  
 Standard Brush Co., New Hartford, Conn.  
 Thayer's Son, Ellis, Pawtucket, R. I.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**228 BRUSHES—Paint and Varnish—**

Adams & Co., J. J., 128 Greenpoint Ave., Brooklyn, N. Y.  
 Bradley & Smith, 251 Pearl St., New York.  
 Bromwell Brush & Wire Goods Co., 429 Walnut St., Cincinnati, O.  
 BURDSAL CO., THE A., Indianapolis, Ind.  
 Dennin & Sons, Owen, Lansingburg, N. Y.  
 Devoe & Reynolds Co., New York and Chicago.  
 Gerts, Lumbard & Co., 208 Randolph St., Chicago, Ill.  
 Guider & Co., G. C., 11½ Frederick St., Baltimore, Md.  
 Hanlon & Goodman, 57 Fulton St., New York.  
 Lucas & Co., John, 4th and Race Sts., Philadelphia, Pa.  
 Martin's Sons, J. M. C., 107 Fulton St., New York.  
 Mulford, Charles W., 94 Beekman St., New York.  
 Thayer's Son, Ellis, Pawtucket, R. I.  
 Thum, Charles B., 150 N. 3d St., Philadelphia, Pa.  
 Whiting & Son Co., John L., Boston, Mass.  
 WOLFE, WALKER & CO. (Ltd.), 511 Wood St., Pittsburg, Pa.  
 See ad. page A 3.  
 Wooster Brush Works, Wooster, O.

**229 BRUSHES—Pipe Cleaning Fibre—**

Pollock Brush Co., Easton, Pa.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**230 BRUSHES—Pope's Eye—**

Grand Rapids Brush Co., Grand Rapids, Mich.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**231 BRUSHES—Railroad Floor Sweepers—**

Adams & Co., J. J., 128 Greenpoint Ave., Brooklyn, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

232 BRUSHES—Scratch—

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Reichhelm & Co., E. P., 23 John St., New York.  
 Thayer's Son, Ellis, Pawtucket, R. I.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

233 BRUSHES—Scrub—

Adams & Co., J. J., 128 Greenpoint Ave., Brooklyn, N. Y.  
 American Brush Co., 62 Jefferson Ave., Detroit, Mich.  
 Bromwell Brush & Wire Goods Co., 429 Walnut St., Cincinnati, O.  
 Devoe & Reynolds Co., New York and Chicago.  
 Grand Rapids Brush Co., Grand Rapids, Mich.  
 Hanlon & Goodman, 57 Fulton St., New York.  
 Lee Broom & Duster Co., Davenport, Ia.  
 Lucas & Co., John, 4th and Race Sts., Philadelphia, Pa.  
 Mitchell, E., 63 Fulton St., New York.  
 Smith & Son, J. F., 116 Chambers St., New York.  
 Standard Brush Co., New Hartford, Conn.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

234 BRUSHES—Special—

Standard Brush Co., New Hartford, Conn.  
 Van Kleeck, William H., Lansingburg, N. Y.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

235 BRUSHES—Steel Boiler Flue—

Dennin & Sons, Owen, Lansingburg, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Martin's Sons, J. M. C., 107 Fulton St., New York.  
 Meyers Manufacturing Co., Fred J., Hamilton, O.  
 Obermayer Co., S., Cincinnati, O.  
 Paxson Co., J. W., 1021 N. Delaware Ave., Philadelphia, Pa.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

236 BRUSHES—Steel Casting—

Bromwell Brush & Wire Goods Co., 429 Walnut St., Cincinnati, O.  
 Gilbert & Bennett Manufacturing Co., 44 Cliff St., New York.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Meyers Manufacturing Co., Fred J., Hamilton, O.  
 Obermayer Co., S., Cincinnati, O.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

237 BRUSHES—Steel Wire—

Cincinnati Manufacturing Co., 519 Walnut St., Cincinnati, O.  
 Eureka Tempered Copper Co., North East, Pa.  
 Gilbert & Bennett Manufacturing Co., 44 Cliff St., New York.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Meyers Manufacturing Co., Fred J., Hamilton, O.  
 Obermayer Co., S., Cincinnati, O.  
 Paxson Co., J. W., 1021 N. Delaware Ave., Philadelphia, Pa.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.



**238 BRUSHES—Stove—**

American Brush Co., Detroit, Mich.  
 Bradley & Smith, 251 Pearl St., New York.  
 Bromwell Brush & Wire Goods Co., 429 Walnut St., Cincinnati, O.  
 Grand Rapids Brush Co., Grand Rapids, Mich.  
 Jordan & Christie, 25 Charleston St., Boston, Mass.  
 Parks & Parks, Troy, N. Y.  
 Smith & Son, J. F., 116 Chambers St., New York.  
 Standard Brush Co., New Hartford, Conn.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**239 BRUSHES—Tar and Roofing—**

Bradley & Smith, 251 Pearl St., New York.  
 Bromwell Brush & Wire Goods Co., 429 Walnut St., Cincinnati, O.  
 Hanlon & Goodman, 57 Fulton St., New York.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**240 BRUSHES—Whitewash—**

American Brush Co., Detroit, Mich.  
 Bradley & Smith, 251 Pearl St., New York.  
 Bromwell Brush & Wire Goods Co., 429 Walnut St., Cincinnati, O.  
 Dennin & Sons, Owen, Lansingburg, N. Y.  
 Guider & Co., G. C., 11½ S. Frederick St., Baltimore, Md.  
 Martin's Sons, J. M. C., 107 Fulton St., New York.  
 Whiting & Son Co., John L., Boston, Mass.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.  
 Wooster Brush Works, Wooster, O.

**241 BRUSHES—Window—**

American Brush Co., Detroit, Mich.  
 Bradley & Smith, 251 Pearl St., New York.  
 Bromwell Brush & Wire Goods Co., 429 Walnut St., Cincinnati, O.  
 Grand Rapids Brush Co., Grand Rapids, Mich.  
 Pollock Brush Co., Easton, Pa.  
 Whiting & Son Co., John L., Boston, Mass.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**242 BRUSHES—Wire—**

Darby & Sons, Edward, 233 Arch St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**243 BRUSHES—Wood Fillers—**

Bradley & Smith, 251 Pearl St., New York.  
 Grand Rapids Brush Co., Grand Rapids, Mich.  
 Hanlon & Goodman, 57 Fulton St., New York.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

**A243 BUCKETS—Clam Shell—**

Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.

**244 BUCKETS—Coal Elevator—**

Chain Belt Co., Milwaukee, Wis.  
 Detroit Sprocket Chain Co. (Ltd.), Detroit, Mich.  
 McMyler Manufacturing Co., Cleveland, O.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

**A244 BUCKETS—Coal Dump—**

SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.

**245 BUCKETS—Dope—**

Bostwick-Braun Co., The, Toledo, O.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Linley Supply Co, Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**246 BUCKETS—Dredge—**

Bucyrus Co., The S., Milwaukee, Wis.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Stuebner, G. L., 167 3d St., Long Island City, N. Y.  
 Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.

**247 BUCKETS—Elevator—**

American Engineering Works, 204 Dearborn St., Chicago, Ill.  
 Avery Stamping Co., Coe and Lake Sts., Cleveland, O.  
 Chain Belt Co., Milwaukee, Wis.  
 Clark Co., W. J., Salem, O.  
 Cleveland Elevator Bucket Co., Cleveland, O.  
 Cooney, Seiner & Co., Indianapolis, Ind.  
 Great Western Manufacturing Co., Leavenworth, Kas.  
 Iron Clad Manufacturing Co., 22 Cliff St., New York.  
 Jeffrey Manufacturing Co., Columbus, O.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.  
 Link-Belt Machinery Co., Chicago, Ill.  
 New Orleans Roofing & Metal Works, 92 Lafayette St., New Orleans, La.  
 Nordyke & Marmon Co., Indianapolis, Ind.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Skillin-Richards Manufacturing Co., 241 S. Jefferson St., Chicago, Ill.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**248 BUCKETS—Factory—**

Clark Co., W. J., Salem, O.  
 Dover Stamping Co., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 St. Louis Stamping Co., St. Louis, Mo.

**249 BUCKETS—Fire—Galvanized—**

American Stamping Co., 103 N. 3d St., Brooklyn, N. Y.  
 Dover Stamping Co., Boston, Mass.  
 Iron Clad Manufacturing Co., 22 Cliff St., New York.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Shepard & Co., Sidney, Buffalo, N. Y.

**250 BUCKETS—Fire—Paper—**

Cordley & Hayes, 172 Duane St., New York.

**251 BUCKETS—Fire—Rubber—**

Goodyear Rubber Co., 787 Broadway, New York.  
 Gutta Percha & Rubber Mfg. Co., 35 Warren St., New York.  
 Hodgman Rubber Co., 595 Broadway, New York.

**252 BUCKETS—Hoisting—**

Carlin's Sons, Thomas, Allegheny, Pa.  
 Chain Belt Co., Milwaukee, Wis.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**A252 BUCKETS—Malleable Iron—**

Link-Belt Machinery Co., Chicago, Ill.

**253 BUCKETS—Ore—**

Allis Co., Edward P., Milwaukee, Wis.  
 Bullock Manufacturing Co., M. C., Chicago, Ill.  
 Chain Belt Co., Milwaukee, Wis.  
 Clark Co., W. J., Salem, O.  
 Jeffrey Manufacturing Co., Columbus, O.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Montgomery Machinery Co., J. H., Curtis St., Denver, Col.  
 Ryan-McDonald Manufacturing Co., 44 South St., Baltimore, Md.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**254 BUCKETS—Steel—**

Chain Belt Co., Milwaukee, Wis.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Ryan-McDonald Manufacturing Co., 44 South St., Baltimore, Md.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

**255 BUCKETS—Steel Elevator—Seamless—**

Avery Stamping Co., Cleveland, O.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.

**256 BUCKETS—Tallow—**

Buck Manufacturing Co., M. M., St. Louis, Mo.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.

**257 BUCKETS AND PAILS—**

Allis Co., E. P., Milwaukee, Wis.  
 Bellaire Stamping Co., Harvey, Ill.  
 Bostwick-Braun Co., The, Toledo, O.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Cordley & Hayes, 172 Duane St., New York.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Jeffrey Manufacturing Co., Columbus, O.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pfeifer & Co., John (Ltd.), 222 Race St., Philadelphia, Pa.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Reilly Bros., 322 W. 41st St., New York.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**258 BUFFERS—Locomotive—**

Gould Coupler Co., New York.

**259 BUILDINGS—Iron—**

American Bridge Co., Philadelphia, Pa.  
 Carroll-Porter Boiler & Tank Co., Pittsburg, Pa.  
 Cornell, J. B. & J. M., 26th St. and 11th Ave., New York.  
 Dimond, Thomas, 128 W. 33d St., New York.  
 Garry Iron & Steel Roofing Co., 152 Merwyn St., Cleveland, O.  
 Hecla Iron Works, N. 11th and Berry Sts., Brooklyn, N. Y.  
 Indianapolis Switch & Frog Co., Springfield, O.  
 Moseley Iron Bridge & Roof Co., 39 Cortlandt St., New York.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
 Riter-Conley Manufacturing Co., Pittsburg, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Variety Iron Works, York, Pa.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**260 BUILDINGS—Steel—**

American Bridge Co., Philadelphia, Pa.  
 Krajewski, Pesant & Co., 35 Broadway, New York.  
 Pennsylvania Steel Co., Steelton, Pa.  
 SCAIFE & SONS, WM. B., Pittsburg, Pa. See ad. page A 8.

**261 BULLETINS—Engineers—**

Buck Manufacturing Co., M. M., St. Louis, Mo.

**262 BUMPERS—Rubber—**

Gutta Percha & Rubber Manufacturing Co., 35 Warren St., New York.

Knapp & Cowles Manufacturing Co., Bridgeport, Conn.  
New Jersey Car Spring & Rubber Co., Jersey City, N. J.

**263 BUMPING POSTS—**

Drexel Railway Supply Co., Fisher Bldg., Chicago, Ill.  
Mechanical Manufacturing Co., Geo. L. Chatfield, Agt., Chicago.  
Q. & C. Co., 700 Western Union Bldg., Chicago, Ill.  
Shaw, Thomas, 915 Ridge Ave., Philadelphia, Pa.

**264 BURNERS—Boiler—Natural Gas—**

Pittsburg Meter Co., E. Pittsburg, Pa.

**265 BURNERS—Lamp—**

Adams & Westlake Co., The, Chicago, Ill.  
American Brass Co., Waterbury, Conn.  
American Lamp & Brass Co., Trenton, N. J.  
Bradley & Hubbard Manufacturing Co., Meriden, Conn.  
Bridgeport Brass Co., Bridgeport, Conn.  
Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
Manhattan Brass Co., 338 E. 28th St., New York.  
National Brass & Iron Works, Reading, Pa.  
Pittsburg Lamp & Brass Co., Allegheny City, Pa.  
Plume & Atwood Manufacturing Co., Waterbury, Conn.  
Rochester Lamp Co., New York.  
Scovill Manufacturing Co., Waterbury, Conn.  
Wheeling Stamping Co., Wheeling, W. V.

**266 BURNERS—Lantern—**

Bridgeport Brass Co., Bridgeport, Conn.  
Dietz Co., R. E., 60 Laight St., New York.  
Miller & Co., Edward, Meriden, Conn.

**267 BURRS—Iron—**

American Screw Co., Providence, R. I.  
Atlas Tack Corporation, Taunton, Mass.  
Cobb & Drew, Plymouth, Mass.  
Elbel & Co., Canton, O.  
Reed & Prince Manufacturing Co., Worcester, Mass.  
Upson Nut Co., Unionville, Conn.

**268 BUSHINGS—**

Bostwick-Braun Co., The, Toledo, O.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
James & Co. (Inc.), Chattanooga, Tenn.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel & Railway Supply Co., Louisville, Ky.

268 BUSHINGS—Continued.

New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
Standard Seamless Tube Co., Pittsburg, Pa.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

269 BUTTS—Brass—

Bostwick-Braun Co., The, Toledo, O.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
James & Co. (Inc.), Chattanooga, Tenn.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

270 BUTTS—Door—

Bostwick-Braun Co., The, Toledo, O.  
Brass Goods Manufacturing Co., 117 Chambers St., New York.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hungerford Brass & Copper Co., U. T., 121 Worth St., New York.  
Hunt Co., C. W., 45 Broadway, New York.  
James & Co. (Inc.), Chattanooga, Tenn.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
McKinney Manufacturing Co., Allegheny, Pa.  
New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
Peck, Stow & Wilcox Co., Southington, Conn.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Russell & Erwin Manufacturing Co., 45 Chambers St., New York.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
Stanley Works, New Britain, Conn.  
Wheeling Hinge Co., Wheeling, W. Va.  
Yale & Towne Manufacturing Co., Stamford, Conn.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

271 BUTTS—Loose Joint—

Bostwick-Braun Co., The, Toledo, O.  
Brittan & Matthes Co., Pittsburg, Pa.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.

## 271 BUTTS—Loose Joint—Continued.

Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New England Butt Co., Providence, R. I.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Stanley Works, New Britain, Conn.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 272 BUTTS—Loose Pin—

Bostwick-Braun Co., The, Toledo, O.  
 Brittan & Matthes Co., Pittsburg, Pa.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New England Butt Co., Providence, R. I.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Stanley Works, New Britain, Conn.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 273 BUTTS—Spring—

Chicago Spring Butt Co., 491 Carroll Ave., Chicago, Ill.  
 McKinney Manufacturing Co., Allegheny, Pa.  
 Peck, Stow & Wilcox Co., Southington, Conn.  
 Stearns & Co., E. C., Syracuse, N. Y.  
 Stover Manufacturing Co., Freeport, Ill.

## 274 BUTTONS—Uniform—

American Railway Supply Co., 24 Park Place, New York.  
 Waterbury Button Co., Waterbury, Conn.  
 Woodman Manufacturing & Supply Co., The R., 63 Oliver St., Boston, Mass.

## 275 CABLES—Copper—Electric—

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 American Electrical Works, Providence, R. I.  
 Ansonia Brass & Copper Co., 19 Cliff St., New York.  
 Bishop Gutta Percha Co., 422 E. 25th St., New York.  
 Moore, Alfred F., 200 N. 3d St., Philadelphia, Pa.  
 Okonite Co., The (Ltd.), 253 Broadway, New York.  
 Pittsburg Electrical & Machine Works, Pittsburg, Pa.  
 Safety Insulated Wire & Cable Co., 229 W. 28th St., New York.  
 Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

277 CABLES—Wire—

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.

Hazard Manufacturing Co., Wilkes-Barre, Pa.

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.

Leschen & Sons Rope Co., A., St. Louis, Mo.

Roebbing's Sons Co., J. A., 117 Liberty St., New York.

Trenton Iron Co., Trenton, N. J.

279 CAISSONS—

Ritter-Conley Manufacturing Co., Pittsburg, Pa.

280 CALIPERS—

Athol Machine Co., Athol, Mass.

Bostwick-Braun Co., The, Toledo, O.

Brown & Sharpe Manufacturing Co., Providence, R. I.

Buck Manufacturing Co., M. M., St. Louis, Mo.

Cahill, Swift & Co., St. Louis, Mo.

Crerar, Adams & Co., Chicago, Ill.

Dwight, E. P., 407 Sansom St., Philadelphia, Pa.

Haines, Jones & Cadbury Co., Philadelphia, Pa.

Hibbard, Spencer, Bartlett & Co., Chicago, Ill.

James & Co. (Inc.), Chattanooga, Tenn.

Johnson, William, Newark, N. J.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Linley Supply Co., Ezra H., St. Louis, Mo.

Louisville Car Wheel & Railway Supply Co., Louisville, Ky.

New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.

Peck, Stow & Wilcox Co., Southington, Conn.

Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.

Pratt & Whitney Co., Hartford, Conn.

Sherburne & Co., 53 Oliver St., Boston, Mass.

Simmons Hardware Co., St. Louis, Mo.

Stevens Arms & Tool Co., J., Chicopee Falls, Mass.

Tower & Lyon, 95 Chambers St., New York.

ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

281 CANS—Cylinder Oil—

MICHIGAN LUBRICATOR CO., Detroit, Mich. See ad. page A 1.

Wall Manufacturing Supply Co., 718 Preble Ave., Allegheny, Pa.

282 CANS—Engineers' Oil—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Manhattan Brass Co., 338 E. 28th St., New York.

MICHIGAN LUBRICATOR CO., Detroit, Mich. See ad. page A 1.

Nason Manufacturing Co., 71 Beekman St., New York.

Swain Lubricator Co., 121 Liberty St., New York.

A282 CANS—Machinists'—Oil—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Manhattan Brass Co., 338 E. 28th St., New York.

MICHIGAN LUBRICATOR CO., Detroit, Mich. See ad. page A 1.

Nason Manufacturing Co., 71 Beekman St., New York.

Swain Lubricator Co., 121 Liberty St., New York.



## 283 CANS—Oil—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Gray, Peter, 12 Marshall St., Boston, Mass.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 MICHIGAN LUBRICATOR CO., Detroit, Mich. See ad. page  
 A 1.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 284 CANS—Oil—Steel—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 MICHIGAN LUBRICATOR CO., Detroit, Mich. See ad. page  
 A 1.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Wall Manufacturing Supply Co., P., 718 Preble Ave., Allegheny.

## 285 CANS—Water—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 286 CANDLES—Coach—

Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Louisville Car Wheel & Railway Supply, Louisville, Ky.

**286 CANDLES—Coach—Continued.**

New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**287 CANT HOOKS—**

Atkins & Co., E. C., Indianapolis, Ind.  
Boston & Lockport Block Co., Boston, Mass.  
Brennan & Co., Louisville, Ky.  
Filler & Stowell Co., Milwaukee, Wis.  
Gerlach & Co., Peter, Cleveland, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Reeves & Co. (Inc.), Columbus, Ind.  
Standard Saw Mill Machinery Co., Erie, Pa.

**288 CAPS—Blasting—**

American Flask & Cap Co., Waterbury, Conn.  
California Cap Co., San Francisco, Cal.  
Metallic Cap Manufacturing Co., 271 Broadway, New York.  
Rendrock Powder Co., 100 Broadway, New York.

**289 CAPS—Uniform—**

Diel & Bro., Geo., St. Louis, Mo.  
Singer & Co., A. L., 233 Monroe St., Chicago, Ill.

**290 CAPSTANS—**

American Ship Windlass Co., Providence, R. I.  
Edson Manufacturing Co., 132 Commercial St., Boston, Mass.  
Hyde Windlass Co., Bath, Me.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Risdon Iron & Locomotive Works, San Francisco, Cal.  
Russell & Sons, Albert, Newburyport, Mass.

**291 CARS—Baggage—**

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
American Car & Foundry Co., St. Louis, Mo.  
Barney & Smith Car Co., Dayton, Ohio.  
Billmeyer & Small Co., York, Pa.  
Bradley & Son, Osgood, Worcester, Mass.  
Brill Co., J. G., 62d and Woodland Ave., Philadelphia, Pa.  
Duplex Car Co., 253 Broadway, New York.  
Eastern Rolling Stock Co., Lowell, Mass.  
Harlan & Hollingsworth Co., Wilmington, Del.  
Haskell & Barker Car Co., Michigan City, Ind.  
Holt Manufacturing Co., Stockton, Cal.  
Jackson & Sharp Co., Wilmington, Del.  
Jones' Sons, J. M., W. Troy, N. Y.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Laconia Car Co.'s Works, Laconia, N. H.  
Lebanon Manufacturing Co., Lebanon, Pa.  
Pullman's Palace Car Co., 201 Pullman Bldg., Chicago, Ill.  
RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic  
Bldg., Indianapolis, Ind. See ad. page B 1.  
Southern Car Co., Chattanooga, Tenn.  
Tredegear Co., Richmond, Va.  
Wason Manufacturing Co., Springfield, Mass.

## 292 CARS—Coal and Ore Dump—Mine—

Allison Manufacturing Co., S. 32d and Walnut Sts., Philadelphia.  
 American Car & Foundry Co., St. Louis, Mo.  
 Barney & Smith Car Co., Dayton, Ohio.  
 Buda Foundry & Manufacturing Co., Harvey, Ill.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Gates Iron Works, Chicago, Ill.  
 Haskell & Barker Car Co., Michigan City, Ind.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lebanon Manufacturing Co., Lebanon, Pa.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Mount Vernon Car Manufacturing Co., Mount Vernon, Ill.  
 RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic Bldg., Indianapolis, Ind. See ad. page B 1.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Stuebner Co., G. L., Long Island City, N. Y.  
 Weber Gas & Gasoline Engine Co., Kansas City, Mo.

## 293 CARS—Construction—

American Car & Foundry Co., St. Louis, Mo.  
 American Clay Working Machinery Co., Bucyrus, Ohio.  
 Billmeyer & Small Co., York, Pa.  
 Buda Foundry & Manufacturing Co., Harvey, Ill.  
 Corey & Co., Dearborn St., Chicago, Ill.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Gates Iron Works, Chicago, Ill.  
 Goodwin Car Co., 96 Fifth Ave., New York.  
 Haskell & Barker Car Co., Michigan City, Ind.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Koppel, Arthur, 68 Broad St., New York.  
 Lima Locomotive & Machine Co., Lima, Ohio.  
 McFadden Co., 722 Arch St., Philadelphia, Pa.  
 Mount Vernon Car Manufacturing Co., Mount Vernon, Ill.  
 Peacock's Iron Works, Selma, Ala.  
 RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic Bldg., Indianapolis, Ind. See ad. page B 1.

## 294 CARS—Derrick—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
 American Car & Foundry Co., St. Louis, Mo.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 Industrial Works, Bay City, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Marion Steam Shovel Co., Marion, Ohio.  
 Mount Vernon Car Manufacturing Co., Mount Vernon, Ill.  
 Osgood Dredge Co., Albany, N. Y.  
 Toledo Foundry & Machine Co., Toledo, Ohio.  
 Vulcan Iron Works Co., The, Toledo, Ohio.

## 295 CARS—Drawing Room—

American Car & Foundry Co., St. Louis, Mo.  
 Barney & Smith Car Co., Dayton, Ohio.  
 Eastern Rolling Stock Co., Lowell, Mass.

295 CARS—Drawing Room—Continued.

Harlan & Hollingsworth Co., Wilmington, Del.  
Haskell & Barker Car Co., Michigan City, Ind.  
Jackson & Sharp Co., Wilmington, Del.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Pullman's Palace Car Co., 201 Pullman Bldg., Chicago, Ill.  
RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic  
Bldg., Indianapolis, Ind. See ad. page B 1.  
Southern Car Co., Chattanooga, Tenn.

296 CARS—Drop Bottom—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
American Car & Foundry Co., St. Louis, Mo.  
Goodwin Car Co., 96 5th Ave., New York.  
Haskell & Barker Car Co., Michigan City, Ind.  
Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Mount Vernon Car Manufacturing Co., Mount Vernon, Ill.

297 CARS—Dump—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
American Car & Foundry Co., St. Louis, Mo.  
Billmeyer & Small Co., York, Pa.  
Bloomsburg Car Co., Bloomsburg, Pa.  
Bradley & Son, Osgood, Worcester, Mass.  
Buda Foundry & Manufacturing Co., Harvey, Ill.  
Fairbanks, Morse & Co., Chicago, Ill.  
Goodwin Car Co., 96 5th Ave., New York.  
Haskell & Barker Car Co., Michigan City, Ind.  
Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Lima Locomotive & Machine Works, Lima, Ohio.  
Litchfield Car Works, Litchfield, Ill.  
Mount Vernon Car Manufacturing Co., Mount Vernon, Ill.  
Peteler Portable Railway Manufacturing Co., Minneapolis, Minn.  
RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic  
Bldg., Indianapolis, Ind. See ad. page B 1.  
Rogers Ballast Car Co., Fisher Bldg., Chicago, Ill.  
Southern Car Co., Chattanooga, Tenn.  
Vulcan Iron Works, Wilkesbarre, Pa.

298 CARS—Dump—Construction—

American Car & Foundry Co., St. Louis, Mo.  
American Clay Working Machinery Co., Bucyrus, Ohio.  
Austin Manufacturing Co., F. C., Harvey, Ill.  
Bodley Wagon Co., Staunton, Va.  
Buda Foundry & Manufacturing Co., Harvey, Ill.  
Carlin's Sons, Thomas, Allegheny, Pa.  
Clark Co., W. J., Salem, Ohio.  
Corey & Co., Dearborn St., Chicago, Ill.  
Dickson Manufacturing Co., Scranton, Pa.  
Fairbanks, Morse & Co., Chicago, Ill.  
Goodwin Car Co., 96 5th Ave., New York.  
Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 298 CARS—Dump—Construction—Continued.

Mitchell & Lewis Co. (Ltd.), Racine, Wis.  
 Peacock's Iron Works, Selma, Ala.  
 Potts & Co., C. & A. (Inc.), Indianapolis, Ind.  
 RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.  
 Western Wheeled Scraper Co., Aurora, Ill.

## 299 CARS—Freight—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
 American Car & Foundry Co., St. Louis, Mo.  
 Barney & Smith Car Co., Dayton, Ohio.  
 Billmeyer & Small Co., York, Pa.  
 Bloomsburg Car Co., Bloomsburg, Pa.  
 Bradley & Son, Osgood, Worcester, Mass.  
 Brill Co., J. G., 62d St. and Woodland Ave., Philadelphia, Pa.  
 Buffalo Car Manufacturing Co., Buffalo, N. Y.  
 Coleman, H. Dudley, New Orleans, La.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Duplex Car Co., 253 Broadway, New York.  
 Eastern Rolling Stock Co., Lowell, Mass.  
 Erie Car Works, Erie, Pa.  
 Georgia Car & Manufacturing Co., Savannah, Ga.  
 Goodwin Car Co., 96 5th Ave., New York.  
 Harlan & Hollingsworth Co., Wilmington, Del.  
 Haskell & Barker Car Co., Michigan City, Ind.  
 Holt Manufacturing Co., Stockton, Cal.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 Jackson & Sharp Co., Wilmington, Del.  
 Jones' Sons, J. M., W. Troy, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Laconia Car Co. Works, Laconia, N. H.  
 Lima Locomotive & Machine Co., Lima, Ohio.  
 Lincoln Iron Works, Rutland, Vt.  
 Litchfield Car Works, Litchfield, Ill.  
 Middletown Car Works, Middletown, Pa.  
 Mount Vernon Car Manufacturing Co., Mount Vernon, Ill.  
 North Carolina Car Co., Raleigh, N. C.  
 Ottumwa Iron Works, Ottumwa, Iowa.  
 Peacock's Iron Works, Selma, Ala.  
 Portland Co., Portland, Me.  
 Pressed Steel Car Co., Pittsburg, Pa.  
 Pullman's Palace Car Co., 201 Pullman Bldg., Chicago, Ill.  
 RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.  
 Ryan-McDonald Manufacturing Co., Baltimore, Md.  
 South Baltimore Car Works, South Baltimore, Md.  
 Southern Car Co., Chattanooga, Tenn.  
 Sterlingworth Railway Supply Co., Easton, Pa.  
 Tredegar Co., Richmond, Va.  
 Wason Manufacturing Co., Springfield, Mass.

## 300 CARS—Gas Motor—

Connelly, John E., 542 Hudson St., New York.  
 Sheffield Car Co., Three Rivers, Mich.

301 CARS—Hand—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
 Billmeyer & Small Co., York, Pa.  
 Brill Co., J. G., 62d St. and Woodland Ave., Philadelphia, Pa.  
 Buda Foundry & Manufacturing Co., Harvey, Ill.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 Kalamazoo Railroad Velocipede & Car Co., Kalamazoo, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lansing Wheelbarrow Co., Lansing, Mich.  
 Peacock's Iron Works, Selma, Ala.  
 Roberts Car & Wheel Co., Three Rivers, Mich.  
 Russell Wheel & Foundry Co., Detroit, Mich.  
 Sheffield Car Co., Three Rivers, Mich.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

302 CARS—Inspection—

American Car & Foundry Co., St. Louis, Mo.  
 Buda Foundry & Manufacturing Co., Harvey, Ill.  
 Corey & Co., Dearborn St., Chicago, Ill.  
 Daimler Manufacturing Co., Long Island City, N. Y.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 Kalamazoo Railroad Velocipede & Car Co., Kalamazoo, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Light Inspection Car Co., Hagerstown, Ind.  
 Sheffield Car Co., Three Rivers, Mich.

303 CARS—Iron—Coal Mine—

Evans, F. H., 596 Kent Ave., Brooklyn, N. Y.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Peacock's Iron Works, Selma, Ala.  
 Stuebner, G. L., Long Island City, N. Y.

304 CARS—Logging—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
 Billmeyer & Small Co., York, Pa.  
 Butterworth & Lowe, Grand Rapids, Mich.  
 Climax Manufacturing Co., Corey, Pa.  
 Corey & Co., Dearborn St., Chicago, Ill.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lima Locomotive & Machine Co., Lima, Ohio.  
 Mount Vernon Car Manufacturing Co., Mount Vernon, Ill.  
 Peacock's Iron Works, Selma, Ala.  
 RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.  
 Richmond Locomotive & Machine Works, Richmond, Va.  
 Russell Wheel & Foundry Co., Detroit, Mich.  
 Sheffield Car Co., Three Rivers, Mich.  
 Tredegar Co., Richmond, Va.

## 305 CARS—Mail—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
 American Car & Foundry Co., St. Louis, Mo.  
 Barney & Smith Car Co., Dayton, Ohio.  
 Billmeyer & Small Co., York, Pa.  
 Bradley & Son, Osgood, Worcester, Mass.  
 Duplex Car Co., 253 Broadway, New York.  
 Eastern Rolling Stock Co., Lowell, Mass.  
 Harlan & Hollingsworth Co., Wilmington, Del.  
 Haskell & Barker Co., Michigan City, Ind.  
 Holt Manufacturing Co., Stockton, Cal.  
 Jackson & Sharp Co., Wilmington, Del.  
 Jones' Sons, J. M., West Troy, N. Y.  
 Laconia Car Co. Works, Laconia, N. H.  
 Pullman's Palace Car Co., 201 Pullman Bldg., Chicago, Ill.  
 RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.  
 Southern Car Co., Chattanooga, Tenn.  
 Tredegar Co., Richmond, Va.  
 Wason Manufacturing Co., Springfield, Mass.

## 306 CARS—Mine—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
 Atlas Bolt & Screw Co., Cleveland, Ohio.  
 Bacon, Earle C., 26 Cortlandt St., New York.  
 Belleville Pump & Skein Works, Belleville, Ill.  
 Billmeyer & Small Co., York, Pa.  
 Bloomsburg Car Co., Bloomsburg, Pa.  
 Bodley Wagon Co., Staunton, Va.  
 Buda Foundry & Manufacturing Co., Harvey, Ill.  
 Danville Foundry & Machine Co., Danville, Ill.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Ellison & Sons, William, St. Louis, Mo.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Fraser & Chalmers, 12th St., and Washtenaw Ave., Chicago, Ill.  
 Gates Iron Works, 650 Elston Ave., Chicago, Ill.  
 Hamlin Car Wheel & Mine Car Co., Catawissa, Pa.  
 Herbertson's Sons, J., Cadwallader, Pa.  
 Hockensmith Wheel & Mine Car Co., Irwin, Pa.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 Kenney & Co., Scottdale, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lebanon Manufacturing Co., Lebanon, Pa.  
 Lima Locomotive & Machine Co., Lima, Ohio.  
 Monongahela Manufacturing Co., Monongahela, Pa.  
 Nelsonville Foundry & Machine Co., Nelsonville, Ohio.  
 Ottumwa Iron Works, Ottumwa, Iowa.  
 Peacock's Iron Works, Selma, Ala.  
 Phillips Mine Supply Co., Pittsburg, Pa.  
 Prox & Brinkman Manufacturing Co., Terre Haute, Ind.  
 Russell Wheel & Foundry Co., Detroit, Mich.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Sheffield Car Co., Three Rivers, Mich.  
 Tamaqua Manufacturing Co., Tamaqua, Pa.  
 Tredegar Co., Richmond, Va.  
 Watt Mining Car Wheel Co., Barnesville, Ohio.

307 CARS—Oil Tank—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
 American Car & Foundry Co., St. Louis, Mo.  
 Carroll-Porter Boiler & Tank Co., Pittsburg, Pa.  
 Haskell & Barker Car Co., Michigan City, Ind.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 Pollock & Co., Wm. B., Youngstown, Ohio.  
 RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Struthers, Wells & Co., Warren, Pa.  
 Tredegar Co., Richmond, Va.

308 CARS—Passenger—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
 American Car & Foundry Co., St. Louis, Mo.  
 Barney & Smith Car Co., Dayton, Ohio.  
 Billmeyer & Small Co., York, Pa.  
 Bradley & Son, Osgood, Worcester, Mass.  
 Duplex Car Co., 253 Broadway, New York.  
 Eastern Rolling Stock Co., Lowell, Mass.  
 Hammond & Co., J., San Francisco, Cal.  
 Harlan & Hollingsworth Co., Wilmington, Del.  
 Haskell & Barker Car Co., Michigan City, Ind.  
 Holt Manufacturing Co., Stockton, Cal.  
 Jackson & Sharp Co., Wilmington, Del.  
 Jones' Sons, J. M., West Troy, N. Y.  
 Laconia Car Co. Works, Laconia, N. H.  
 Pullman's Palace Car Co., 201 Pullman Bldg., Chicago, Ill.  
 RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.  
 Southern Car Co., Chattanooga, Tenn.  
 Tredegar Co., Richmond, Va.  
 Wason Manufacturing Co., Springfield, Mass.

309 CARS—Pile Driver—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Mount Vernon Car Manufacturing Co., Mount Vernon, Ill.  
 VULCAN IRON WORKS, 59 Milwaukee Ave., Chicago, Ill.

310 CARS—Pit—

Corey & Co., Dearborn St., Chicago, Ill.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Litchfield Car Works, Litchfield, Ill.  
 Peacock's Iron Works, Selma, Ala.

311 CARS—Plantation—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
 Bodley Wagon Co., Staunton, Va.  
 Brill Co., J. G., 62d St. and Woodland Ave., Philadelphia, Pa.  
 Buda Foundry & Manufacturing Co., Harvey, Ill.  
 Coleman, H. Dudley, New Orleans, La.



## 311 CARS—Plantation—Continued.

Fairbanks, Morse & Co., Chicago, Ill.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lima Locomotive & Machine Co., Lima, Ohio.  
 Peacock's Iron Works, Selma, Ala.  
 RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.  
 Russell Wheel & Foundry Co., Detroit, Mich.  
 Sheffield Car Co., Three Rivers, Mich.  
 Turl's Sons, John, 534 W. 28th St., New York.

## 312 CARS—Push—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
 Buda Foundry & Manufacturing Co., Harvey, Ill.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Peacock's Iron Works, Selma, Ala.  
 Roberts Car & Wheel Co., Three Rivers, Mich.  
 Sheffield Car Co., Three Rivers, Mich.  
 Stuebner, G. L., Long Island City, N. Y.

## 313 CARS—Quarry—

Buda Foundry & Manufacturing Co., Harvey, Ill.  
 Gates Iron Works, Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 314 CARS—Refrigerator—

Allison Manufacturing Co., Philadelphia, Pa.  
 American Car & Foundry Co., St. Louis, Mo.  
 Barney & Smith Car Co., Dayton, Ohio.  
 Billmeyer & Small Co., York, Pa.  
 Bloomsburg Car Co., Bloomsburg, Pa.  
 Bradley & Son, Osgood, Worcester, Mass.  
 Coleman, H. Dudley, New Orleans, La.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Duplex Car Co., 253 Broadway, New York.  
 Eastern Rolling Stock Co., Lowell, Mass.  
 Erie Car Works, Erie, Pa.  
 Georgia Car & Manufacturing Co., Savannah, Ga.  
 Harlan & Hollingsworth Co., Wilmington, Del.  
 Haskell & Barker Car Co., Michigan City, Ind.  
 Holt Manufacturing Co., Stockton, Cal.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 Jackson & Sharp Co., Wilmington, Del.  
 Jones' Sons, J. M., West Troy, N. Y.  
 Laconia Car Co. Works, Laconia, N. H.  
 Lima Locomotive & Machine Co., Lima, Ohio.  
 Lincoln Iron Works, Rutland, Vt.  
 Middletown Car Works, Middletown, Pa.  
 Mount Vernon Car Manufacturing Co., Mount Vernon, Ill.  
 North Carolina Car Co., Raleigh, N. C.  
 Ottumwa Iron Works, Ottumwa, Iowa.  
 Peacock's Iron Works, Selma, Ala.

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314 CARS—Refrigerator—Continued.

Portland Co., Portland, Me.  
 Pullman's Palace Car Co., 201 Pullman Bldg., Chicago, Ill.  
 RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.  
 Ryan-McDonald Manufacturing Co., Baltimore, Md.  
 South Baltimore Car Works, South Baltimore, Md.  
 Southern Car Co., Chattanooga, Tenn.  
 Tredegar Co., Richmond, Va.  
 Wason Manufacturing Co., Springfield, Mass.

315 CARS—Rolled Steel—

Goodwin Car Co., 96 5th Ave., New York.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Sterlingworth Railway Supply Co., Easton, Pa.

316 CARS—Sleeping—

American Car & Foundry Co., St. Louis, Mo.  
 Barney & Smith Car Co., Dayton, Ohio.  
 Jackson & Sharp Co., Wilmington, Del.  
 Pullman's Palace Car Co., 201 Pullman Bldg., Chicago, Ill.  
 RAILWAY EQUIPMENT & FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.

317 CARS—Steam Inspection—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sheffield Car Co., Three Rivers, Mich.

318 CARS—Steam Motor—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
 Brownell Car Co., St. Louis, Mo.  
 Ellis Car Co., Amesbury, Mass.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Jackson & Sharp Co., Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Newburyport Car Manufacturing Co., Newburyport, Mass.  
 Pullman's Palace Car Co., 201 Pullman Bldg., Chicago, Ill.  
 Sheffield Car Co., Three Rivers, Mich.

319 CARS—Steel—

American Car & Foundry Co., St. Louis, Mo.  
 Goodwin Car Co., 96 5th Ave., New York.  
 Pressed Steel Car Co., Pittsburg, Pa.  
 Sterlingworth Railway Supply Co., Easton, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

320 CARS—Steel Dump—

Goodwin Car Co., 96 5th Ave., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lima Locomotive & Machine Co., Lima, Ohio.

**321 CARS—Steel—Mining—**

Corey & Co., 219 Dearborn St., Chicago, Ill.  
 Gates Iron Works, Chicago, Ill.  
 Gillette-Herzog Manufacturing Co., Minneapolis, Minn.  
 Jackson Manufacturing Co., Harrisburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lansing Wheelbarrow Co., Lansing, Mich.  
 Peacock's Iron Works, Selma, Ala.  
 Pressed Steel Car Co., Pittsburg, Pa.  
 Standard Manufacturing Co., 81 Fulton St., New York.

**322 CARS—Track Layers'—**

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
 Buda Foundry & Manufacturing Co., Harvey, Ill.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Peacock's Iron Works, Selma, Ala.  
 Roberts Car & Wheel Co., The, Three Rivers, Mich.  
 Sheffield Car Co., Three Rivers, Mich.

**323 CARS—Wrecking—**

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Industrial Works, Bay City, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Marion Steam Shovel Co., Marion, Ohio.  
 Mount Vernon Car Manufacturing Co., Mount Vernon, Ill.  
 Osgood Dredge Co., Albany, N. Y.  
 Toledo Foundry & Machine Co., Toledo, Ohio.  
 Vulcan Iron Works, Co., The, Toledo, Ohio.

**324 CAR COUPLING HANDLES—**

Buck Manufacturing Co., M. M., St. Louis, Mo.

**325 CAR FURNISHINGS—**

McKay Curtain Co., Wilmington, Del.

**326 CAR HEATING—**

Consolidated Car Heating Co., 413 N. Pearl St., Albany, N. Y.  
 Gold Car Heating Co., Frankfort & Cliff Sts., New York.  
 Safety Car Heating & Lighting Co., The, 160 Broadway, New York.

**327 CAR LIGHTING APPARATUS—**

Adams & Westlake Co., N. Franklin St., Chicago, Ill.  
 Consolidated Railway Electric Lighting & Equipment Co., 100 Broadway, N. Y.  
 Safety Car Heating & Lighting Co., The, 160 Broadway, New York.

**328 CAR MOVERS—**

Boston & Lockport Block Co., Boston, Mass.  
 Boyer & Radford, Dayton, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.

**328 CAR MOVERS—Continued.**

Howell & Co., R. R., Minneapolis, Minn.  
 Jacobus, P. H., Milledale, Ill.  
 Kenney & Co., Scottsdale, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Nims, F. B., Lake Odessa, Mich.  
 Nordyke & Marmon Co., Indianapolis, Ind.  
 Pearson Jack Co., 64 Federal St., Boston, Mass.  
 Skillin-Richards Manufacturing Co., 241 Jefferson St., Chicago.  
 Stafford & Bros., Chicago, Ill.  
 Thornburgh-Creel Co., 241 Jefferson St., Chicago, Ill.  
 Webster Manufacturing Co., 1075 W. 15th St., Chicago, Ill.  
 Woodman Manufacturing & Supply Co., 63 Oliver St., Boston.

**329 CAR PULLERS—Power—**

Barnard & Leas Manufacturing Co., Moline, Ill.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Pease Manufacturing Co., E. H., Racine, Wis.  
 Webster Manufacturing Co., 1075 W. 15th St., Chicago, Ill.

**330 CAR REPLACERS—**

Alexander Car Replacer Manufacturing Co., Scranton, Pa.  
 Cleveland Frog & Crossing Co., Cleveland, Ohio.  
 ELLIOT FROG & SWITCH CO., E. St. Louis, Ill. See ad. page A 5.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Kline, August, 29 State St., Utica, N. Y.  
 Laconia Car Co. Works, Laconia, N. H.  
 Tilden Co., B. E., Monadnock Block, Chicago, Ill.

**331 CAR UNLOADERS—Pneumatic—**

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago, Ill. See ad. page B 2.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**332 CARBONS—Battery—**

National Carbon Co., Cleveland, Ohio.  
 Peru Electric Manufacturing Co., Peru, Ind.  
 Pittsburg Electrical & Machine Works, Pittsburg, Pa.  
 Standard Carbon Co., Cleveland, Ohio.

**333 CARBONS—Electric Light—**

Faraday Carbon Co., Jeannette, Pa.  
 National Carbon Co., Cleveland, Ohio.  
 Solar Carbon & Manufacturing Co., Pittsburg, Pa.  
 Standard Carbon Co., Cleveland, Ohio.  
 Washington Carbon Co., 64 Conestoga Bldg., Pittsburg, Pa.

**334 CARBORUNDUM—**

Carborundum Co., Niagara Falls, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**335 CARBORUNDUM GRAINS—**

Carborundum Co., Niagara Falls, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## A335 CARD HOLDER—

Western Railway Equipment Co., St. Louis, Mo.

## 336 CARPETS—

Bigelow Carpet Co., 100 Worth St., New York.  
 Bromley Carpet Co., Jasper and Taylor Sts., Philadelphia, Pa.  
 Dimick Co., J. W., 111 5th Ave., New York.  
 Hartford Carpet Co., Thompsonville, Conn.  
 Higgins Carpet Co., E. S., 41 Union Square, W., New York.  
 Lowell Manufacturing Co., Lowell, Mass.  
 Shuttleworth Bros., Amsterdam, N. Y.  
 Smith & Sons Carpet Co., Alexander, Yonkers, N. Y.  
 Wild & Co., Joseph, 82 Worth St., New York.

## 337 CARRIAGES—Hose—

Abbot-Downing Co., Concord, N. H.  
 American Fire Engine Co., Seneca Falls, N. Y.  
 Hayward & Co., S. F., 357 Canal St., New York.  
 Jacobs Manufacturing Co., E. H., Danielson, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Muskegon Chemical Fire Engine Co., Muskegon, Mich.  
 Racine Fire Engine Co. (Ltd.), Racine, Wis.  
 Rumsey & Co. (Ltd.), Seneca Falls, N. Y.

## 338 CARTS—Dump—

Austin Manufacturing Co., F. C., Harvey, Ill.  
 Austin, Tomlinson & Webster Manufacturing Co., Jackson, Mich.  
 Bugbee, Charles L., Hartford, Vt.  
 Kentucky Wagon Manufacturing Co., Louisville, Ky.  
 Milburn Wagon Co., Toledo, Ohio.  
 Schuttler & Hotz, 45 W. Monroe St., Chicago, Ill.  
 Western Wheeled Scraper Co., Aurora, Ill.

## 339 CARTS—Hand—

Ames Plow Co., Quincy Hall, Boston, Mass.  
 Belle City Manufacturing Co., Racine, Wis.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Hayes Pump & Planter Co., Galva, Ill.  
 Lansing Wheelbarrow Co., Lansing, Mich.  
 Parlin & Orendorff Co., Canton, Ill.  
 Schuttler & Hotz, 45 W. Monroe St., Chicago, Ill.  
 Whitehurst & Co., R. W., Norfolk, Va.  
 Whitman Agricultural Co., St. Louis, Mo.

## 340 CARTS—Hose—

American Fire Engine Co., Seneca Falls, N. Y.  
 Fenton & Dunn, Holyoke, Mass.  
 Fire Extinguisher Manufacturing Co., 357 Canal St., New York.  
 Gleason & Bailey Mfg. Co., 20 W. Houston St., New York.  
 Goulds Manufacturing Co., Seneca Falls, N. Y.  
 Hayward & Co., S. F., 357 Canal St., New York.  
 Jacobs Manufacturing Co., E. H., Danielson, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Muskegon Chemical Fire Engine Co., Muskegon, Mich.  
 Rumsey & Co. (Ltd.), Seneca Falls, N. Y.

341 CASING—Steam Pipe—

Chester Pipe & Tube Co., 267 S. 4th St., Philadelphia, Pa.  
Michigan Pipe Co., Bay City, Mich.  
National Tube Works Co., Boston, Mass.  
Wyckoff & Son, A., Elmira, N. Y.

342 CASING CLEANERS—Pneumatic—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Standard Pneumatic Tool Co., Marquette Bldg., Chicago, Ill.

343 CASTINGS—Aluminum—

Lackawanna Lubricating Co., Scranton, Pa.

344 CASTINGS—Brass—

Acme Journal Bearing Co., 47 S. Canal St., Chicago, Ill.  
Adams & Westlake Co., Ontario and N. Franklin Sts., Chicago.  
Ajax Metal Co., Philadelphia, Pa.  
Ames Sword Co., Chicopee, Mass.  
Atlantic Brass Co. (Inc.), 192 Broadway, New York.  
Bay State Metal Works, Cambridgeport, Mass.  
Best, Fox & Co., Pittsburg, Pa.  
Brady Brass Co., 202 10th St., Jersey City, N. J.  
Bridgeport Brass Co., Bridgeport, Conn.  
Buckeye Iron & Brass Works, Dayton, Ohio.  
Cadman Manufacturing Co., A. W., Pittsburg, Pa.  
Chapman & Co., J. B., 51 Taylor St., Springfield, Mass.  
Chickasaw Iron Works, Memphis, Tenn.  
Close & Co., E. R., Bradford, Pa.  
Damascus Bronze Co., Pittsburg, Pa.  
Davenport Foundry & Machine Co., Davenport, Iowa.  
Diamond State Steel Co., Wilmington, Del.  
Fulton Iron & Engine Works, Detroit, Mich.  
Grand Rapids Brass Co., Grand Rapids, Mich.  
Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
Hurlbut Co., Racine, Wis.  
Kehoe & Co., William, Savannah, Ga.  
Lackawanna Lubricating Co., Scranton, Pa.  
Litchfield Car Works, Litchfield, Ill.  
Maxwell, H. B., Rome, N. Y.  
McNab & Harlan Manufacturing Co., Paterson, N. J.  
More-Jones Brass & Metal Co., St. Louis, Mo.  
National Brass & Iron Works, Reading, Pa.  
Paxton & Vierling Iron Works, Omaha, Neb.  
Q. & C. Co., 700 Western Union Bldg., Chicago, Ill.  
Racine Hardware Co., Racine, Wis.  
Reeves & Son, Paul S., Philadelphia, Pa.  
Sheriffs Manufacturing Co., Milwaukee, Wis.  
Simpson & Collier, Old Colony Bldg., Chicago, Ill.  
Southern Engine & Boiler Works, Jackson, Tenn.  
Spiral Journal Bearing Co., 1543 N. 2d St., St. Louis, Mo.  
Springfield Brass Co., Springfield, Ohio.  
Stover Manufacturing Co., Freeport, Ill.  
U. S. Bronze Co., Cleveland, Ohio.  
Valley Iron Works, Williamsport, Pa.

**344 CASTINGS—Brass—Continued.**

Vulcan Iron Works, Wilkesbarre, Pa.  
Warren Electric Manufacturing Co., Sandusky, Ohio.  
Whittier Machine Co., Boston, Mass.  
Woodruff & Sons, Walter W., Mount Carmel, Conn.

**345 CASTINGS—Brass—Heavy—**

Lackawanna Lubricating Co., Scranton, Pa.  
Lobdell Car Wheel Co., Wilmington, Del.  
Sharpless & Watts, 1522 Chestnut St., Philadelphia, Pa.

**346 CASTINGS—Bridge—**

Chickasaw Iron Works, Memphis, Tenn.  
Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
Lake Shore Foundry Co., Cleveland, Ohio.  
Lima Locomotive & Machine Co., Lima, Ohio.  
Litchfield Car Works, Litchfield, Ill.  
Lombard Iron Works & Supply Co., Augusta, Ga.  
Mowry Car Wheel Works, East Ave., Cincinnati, Ohio.  
Novelty Iron Works, Dubuque, Iowa.  
Paxton & Vierling Iron Works, Omaha, Neb.  
Vulcan Iron Works, Wilkesbarre, Pa.

**347 CASTINGS—Bridge Pier—**

Adams & Westlake Co., Ontario and Franklin Sts., Chicago, Ill.  
Addyston Pipe & Steel Co., Cincinnati, Ohio.  
Ames Sword Co., Chicopee, Mass.  
Cramp & Sons Ship & Engine Building Co., Wm., Philadelphia.  
Gaylor Co., F. L., Ansonia, Conn.  
Gillette-Herzog Manufacturing Co., Minneapolis, Minn.  
Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
Novelty Iron Works, Dubuque, Iowa.  
Springfield Brass Co., Springfield, Ohio.

**348 CASTINGS—Bronze—**

Acme Journal Bearing Co., 47 S. Canal St., Chicago, Ill.  
Ajax Metal Co., Philadelphia, Pa.  
American Car & Foundry Co., St. Louis, Mo.  
Atlantic Brass Co., 192 Broadway, New York.  
Brady Brass Co., 202 10th St., Jersey City, N. J.  
Chapman & Co., J. B., Springfield, Mass.  
Damascus Bronze Co., Pittsburg, Pa.  
Fulton Iron & Engine Works, Detroit, Mich.  
Gaylor Co., F. L., Ansonia, Conn.  
Grand Rapids Brass Co., Grand Rapids, Mich.  
Maxwell, H. B., Rome, N. Y.  
Q. & C. Co., Chicago, Ill.  
Simpson & Collier, Old Colony Bldg., Chicago, Ill.  
Spiral Journal Bearing Co., 1543 N. 2d St., St. Louis, Mo.  
Stover Manufacturing Co., Freeport, Ill.  
U. S. Bronze Co., Cleveland, Ohio.  
Vulcan Iron Works, Chicago, Ill.  
Warren Electric Manufacturing Co., Sandusky, Ohio.  
Williams & Son, E. A., Jersey City, N. J.

**349 CASTINGS—Car—**

Allison Manufacturing Co., S. 32d and Walnut Sts., Philadelphia.  
 American Car & Foundry Co., St. Louis, Mo.  
 Barney & Smith Car Co., Dayton, Ohio.  
 Bass Foundry & Machine Works, Fort Wayne, Ind.  
 Brill Co., J. G., Philadelphia, Pa.  
 Buda Foundry & Manufacturing Co., Harvey, Ill.  
 Buhl Malleable Co., Detroit, Mich.  
 Dayton Malleable Iron Co., Dayton, Ohio.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 Lake Shore Foundry Co., Cleveland, Ohio.  
 Lima Locomotive & Machine Co., Lima, Ohio.  
 Lobdell Car Wheel Co., Wilmington, Del.  
 Michigan Malleable Iron Co., Detroit, Mich.  
 Middletown Car Works, Middletown, Pa.  
 Mount Vernon Car Manufacturing Co., Mount Vernon, Ill.  
 Mowry Car Wheel Works, Cincinnati, Ohio.  
 NATIONAL MALLEABLE CASTINGS CO., THE, Cleveland, Ohio. See ad. inside front cover.  
 National Railway Specialty Co., Old Colony Bldg., Chicago, Ill.  
 New York Car Wheel Works, Buffalo, N. Y.  
 Pratt & Letchworth Co., Buffalo, N. Y.  
 Ramapo Iron Works, Hillburn, N. Y.  
 Sheffield Car Co., Three Rivers, Mich.  
 Shickle, Harrison & Howard Iron Co., St. Louis, Mo.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**350 CASTINGS—Engine—**

Buhl Malleable Co., Detroit, Mich.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 Lima Locomotive & Machine Co., Lima, Ohio.  
 Michigan Malleable Iron Co., Detroit, Mich.  
 Mowry Car Wheel Works, Cincinnati, Ohio.  
 National Railway Specialty Co., Old Colony Bldg., Chicago, Ill.  
 Novelty Iron Works, Dubuque, Iowa.  
 Pittsburg Steel Castings Co., Pittsburg, Pa.  
 Poole & Son Co., Robert, Baltimore, Md.  
 Pratt & Letchworth Co., Buffalo, N. Y.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Watts-Campbell Co., Newark, N. J.  
 Williams & Son, E. A., Jersey City, N. J.

**351 CASTINGS—Grey Iron—**

Albany Foundry Co., Albany, N. Y.  
 American Car & Foundry Co., St. Louis, Mo.  
 Bowler & Co., Cleveland, Ohio.  
 Bridgeport Malleable Iron Co., Bridgeport, Conn.  
 Buhl Malleable Co., Detroit, Mich.  
 Champion Iron Co., Kenton, Ohio.  
 Cornell, J. B. & J. M., 26th St. and 11th Ave., New York.  
 Haven Co., James L., 56 Plum St., Cincinnati, Ohio.  
 Hurlbut Co., Racine, Wis.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 Martin Brick Machine Manufacturing Co., Henry, Lancaster, Pa.



## 351 CASTINGS—Grey Iron—Continued.

Novelty Iron Works, 3120 Market St., Philadelphia, Pa.  
 Novelty Manufacturing Co., Rock Island, Ill.  
 Over, Ewald, Indianapolis, Ind.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
 Racine Hardware Co., Racine, Wis.  
 Rogers Iron Co., Springfield, Ohio.  
 Springfield Foundry Co., Springfield, Mass.  
 Stover Manufacturing Co., Freeport, Ill.  
 Taylor & Boggis Foundry Co., Cleveland, Ohio.  
 Walker Foundry Co., Erie, Pa.  
 Warren Electric Manufacturing Co., Sandusky, Ohio.  
 Western Malleable & Grey Iron Manufacturing Co., Milwaukee.

## 352 CASTINGS—Iron—

Addyston Pipe & Steel Co., Cincinnati, Ohio.  
 Arnold & Co., Norwalk, Conn.  
 Barbec Wire & Iron Works, 44 Dearborn St., Chicago, Ill.  
 Bass Foundry & Machine Works, Fort Wayne, Ind.  
 Belle City Malleable Iron Co., The, Racine, Wis.  
 Brown & Sharpe Manufacturing Co., Providence, R. I.  
 Ruhl Malleable Co., Detroit, Mich.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Close & Co., E. R., Bradford, Pa.  
 Defiance Machine Works, Defiance, Ohio.  
 Dickson Manufacturing Co., Scranton, Pa.  
 El Paso Foundry & Machine Co., El Paso, Texas.  
 Fall River Machine Co., Fall River, Mass.  
 Farrel Foundry & Machine Co., Havemeyer Bldg., New York.  
 Fulton Foundry Co., Cleveland, Ohio.  
 Gillette-Herzog Manufacturing Co., Minneapolis, Minn.  
 Holt Manufacturing Co., Stockton, Cal.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 Kehoe & Co., William, Savannah, Ga.  
 Kilburn, Lincoln & Co. (Inc.), Fall River, Mass.  
 Lansing Boiler & Engine Works, Lansing, Mich.  
 Lima Locomotive & Machine Co., Lima, Ohio.  
 Livermore Foundry & Machine Co., Memphis, Tenn.  
 Lombard Iron Works & Supply Co., Augusta, Ga.  
 Mechanics' Iron Foundry Co., Boston, Mass.  
 Michigan Malleable Iron Co., Detroit, Mich.  
 Morgan Iron Works, Spartanburg, S. C.  
 Murray Iron Works Co., Burlington, Iowa.  
 National Railway Specialty Co., Old Colony Bldg., Chicago, Ill.  
 Northwestern Malleable Iron Co., Milwaukee, Wis.  
 Novelty Iron Works, 3120 Market St., Philadelphia, Pa.  
 Palmers & De Mooy Foundry Co., Cleveland, Ohio.  
 Paterson Machine Works, Paterson, N. J.  
 Paul & Sons, R. C., Cumberland, Md.  
 Paxton & Vierling Iron Works, Omaha, Neb.  
 Phoenix Iron Foundry, Providence, R. I.  
 Pittsburg Manufacturing Co., Pittsburg, Pa.  
 Pratt & Letchworth Co., Buffalo, N. Y.  
 Racine Hardware Co., Racine, Wis.

252 CASTINGS—Iron—Continued.

Southern Engine & Boiler Works, Jackson, Tenn.  
Springfield Foundry Co., Springfield, Mass.  
Stover Manufacturing Co., Freeport, Ill.  
Taunton Locomotive Manufacturing Co., Taunton, Mass.  
Vulcan Iron Works, Wilkesbarre, Pa.

353 CASTINGS—Locomotive—

Adonis & Price Locomotive Machine Works, Nashville, Tenn.  
American Car & Foundry Co., St. Louis, Mo.  
Baldwin Locomotive Works, 500 N. Broad St., Philadelphia, Pa.  
Brooks Locomotive Works, Dunkirk, N. Y.  
Buhl Malleable Co., Detroit, Mich.  
Cooke Locomotive & Machine Co., Paterson, N. J.  
Dayton Malleable Iron Co., Dayton, Ohio.  
Dickson Manufacturing Co., Scranton, Pa.  
Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
International Power Co., Providence, R. I.  
Lake Shore Foundry Co., Cleveland, Ohio.  
Lima Locomotive & Machine Co., Lima, Ohio.  
Lobdell Car Wheel Co., Wilmington, Del.  
Manchester Locomotive Works, Manchester, N. H.  
Mason Machine Works, Taunton, Mass.  
Midvale Steel Co., Nicetown, Philadelphia, Pa.  
NATIONAL MALLEABLE CASTINGS CO., THE, Cleveland, Ohio. See ad. inside front cover.  
New York Car Wheel Works, Buffalo, N. Y.  
Pittsburg Locomotive & Car Works, Pittsburg, Pa.  
Porter & Co., H. K., Pittsburg, Pa.  
Portland Co., Portland, Me.  
Pratt & Letchworth Co., Buffalo, N. Y.  
Rhode Island Locomotive Works, Providence, R. I.  
Richmond Locomotive & Machine Works, Richmond, Va.  
Risdon Iron & Locomotive Works, San Francisco, Cal.  
Rogers Locomotive Co., Paterson, N. J.  
Schenectady Locomotive Works, Schenectady, N. Y.  
Standard Steel Works, Harrison Bldg., Philadelphia, Pa.  
Taunton Locomotive Manufacturing Co., Taunton, Mass.  
Taylor Iron & Steel Co., High Bridge, N. J.  
Vulcan Iron Works, Wilkesbarre, Pa.

354 CASTINGS—Malleable Iron—

Acme Malleable Iron Works, Buffalo, N. Y.  
American Car & Foundry Co., St. Louis, Mo.  
Arcade Malleable Iron Co., Worcester, Mass.  
Atlantic Brass Co., 192 Broadway, New York.  
Beaver Dam Malleable Iron Co., Beaver Dam, Wis.  
Belle City Malleable Iron Co., The, Racine, Wis.  
Bridgeport Malleable Iron Co., Bridgeport, Conn.  
Buhl Malleable Co., Detroit, Mich.  
Davis Co., John, 51 Michigan St., Chicago, Ill.  
Dayton Malleable Iron Co., Dayton, Ohio.  
Eberhard Manufacturing Co., Cleveland, Ohio.  
Ellis, W. R., 340 Dearborn St., Chicago, Ill.  
Fitch Co., W. & E. T., New Haven, Conn.

## 354 CASTINGS—Malleable Iron—Continued.

Flagg & Co., Stanley G., N. 19th St. and Pennsylvania Ave., Philadelphia, Pa.

Gould Coupler Co., New York.

Grand Rapids Malleable Co., Grand Rapids, Mich.

Illinois Malleable Iron Co., 30 W. Monroe St., Chicago, Ill.

Marion Malleable Iron Works, Marion, Ind.

Michigan Malleable Iron Co., Detroit, Mich.

Missouri Railway Equipment Co., St. Louis, Mo.

NATIONAL MALLEABLE CASTINGS CO., THE, Cleveland, Ohio. See ad. inside front cover.

Northwestern Malleable Iron Co., Milwaukee, Wis.

Pratt & Letchworth Co., Buffalo, N. Y.

Racine Malleable & Wrought Iron Co., Racine, Wis.

Railroad Supply Co., Chicago, Ill.

Troy Malleable Iron Co., Troy, N. Y.

Union Malleable Iron Co., Moline, Ill.

Whiteley Malleable Castings Co., Muncie, Ind.

Wilmington Malleable Iron Co., Wilmington, Del.

Woodruff & Sons, Walter W., Mount Carmel, Conn.

## 355 CASTINGS—Nickel Bronze—

Damascus Bronze Co., Pittsburg, Pa.

## 356 CASTINGS—Phosphor Bronze—

Damascus Bronze Co., Pittsburg, Pa.

Phosphor Bronze Smelting Co. (Ltd.), 2200 Wash. Ave., Philadelphia, Pa.

Reeves & Son, Paul S., Philadelphia, Pa.

## 357 CASTINGS—Special—

Buffalo Cast Iron Pipe Co., Buffalo, N. Y.

Glamorgan Pipe & Foundry Co., Lynchburg, Va.

Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.

Midvale Steel Co., Nicetown, Philadelphia, Pa.

National Foundry & Pipe Works, Scottdale, Pa.

Poole & Son Co., Robert, Baltimore, Md.

Reading Foundry Co., Reading, Pa.

Wendell & MacDuffie, 26 Cortlandt St., New York.

## 358 CASTINGS—Steel—

American Steel Casting Co., Thurlow, Pa.

Arcade Malleable Iron Co., Worcester, Mass.

Cambria Steel Co., Philadelphia, Pa.

Chester Steel Castings Co., Philadelphia, Pa.

DETROIT STEEL & SPRING CO., THE, Detroit, Mich. See ad. page A 8.

Devlin & Co., Thomas, 3d St. and Lehigh Ave., Philadelphia, Pa.

Dutcher Co., J. A. & P. E., Milwaukee, Wis.

Falk Co., The, Milwaukee, Wis.

Franklin Steel Casting Co., The, Franklin, Pa.

Frazer & Jones Co., Syracuse, N. Y.

Howe, Brown & Co. (Ltd.), Pittsburg, Pa.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Lima Locomotive & Machine Co., Lima, Ohio.

358 CASTINGS—Steel—Continued.

Lima Steel Casting Co., Lima, Ohio.  
 Mackintosh-Hemphill & Co. (Ltd.), Pittsburg, Pa.  
 Malleable Iron Fittings Co., Branford, Conn.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 National Steel Castings Co., Montpelier, Ind.  
 Otis Steel Co., Cleveland, Ohio.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pratt & Letchworth Co., Buffalo, N. Y.  
 Prosser & Son, Thomas, 15 Gold St., New York.  
 Sargent Co., The, 675 Old Colony Bldg., Chicago, Ill.  
 Shickle, Harrison & Howard Iron Co., St. Louis, Mo.  
 Shoenberger Steel Co. (Inc.), Pittsburg, Pa.  
 Taylor Iron & Steel Co., High Bridge, N. J.

359 CASTINGS—Truck End—

Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 Western Railway Equipment Co., St. Louis, Mo.

360 CEILING—Car—

Frost's Veneer Seating Co., Sheboygan, Wis.  
 Stephenson Co., John (Ltd.), 47 E. 27th St., New York.

361 CEILING—Corrugated—

Aetna-Standard Iron & Steel Co., Bridgeport, Ohio.  
 Cincinnati Corrugating Co., Piqua, Ohio.  
 Hyndman Steel Roofing Co., 318 E. 2d St., Cincinnati, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Wheeling Corrugating Co., 81 Fulton St., New York.

362 CEILING—Metal—

Bergen Manufacturing Co., Canton, Ohio.  
 Caldwell & Peterson Manufacturing Co. (Inc.), Wheeling W. Va.  
 Canton Steel Roofing Co., Canton, Ohio.  
 Cortright Metal Roofing Co., 50 N. 23d St., Philadelphia, Pa.  
 Garry Iron & Steel Roofing Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Mesker & Bro., 42 S. 6th St., St. Louis, Mo.  
 Wheeling Corrugating Co., 81 Fulton St., New York.

363 CEILING—Plates—

Illinois Malleable Iron Co., W. Monroe St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

364 CEILING—Steel—

Harry Steel Works, O. K., St. Louis, Mo.  
 Kinnear Manufacturing Co., Columbus, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 St. Paul Roofing, Cornice & Ornamental Co., St. Paul, Minn.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

365 CEMENT—

Buffalo Cement Co. (Ltd.), 110 Mankin St., Buffalo, N. Y.  
 Cincinnati Sewer Pipe Co., Elm and Water Sts., Cincinnati, Ohio.  
 CONSOLIDATED COAL & LIME CO., Indianapolis, Ind.  
 GARDEN CITY SAND CO., Chicago, Ill. See ad. page A 2.

## 365 CEMENT--Continued.

Gumbo Cement Co., Chicago, Ill.  
 Henchman, George H., Galveston, Texas.  
 Maryland Lime & Cement Co., Baltimore, Md.  
 Milwaukee Cement Co., Milwaukee, Wis.  
 Moross & Co., C. A., Chattanooga, Tenn.  
 Newark Lime & Cement Manufacturing Co., Newark, N. J.  
 New York Cement Co., Lefever Falls, N. Y.  
 Smooth-On Manufacturing Co., Jersey City, N. J.  
 Union Akron Cement Co., Buffalo, N. Y.

## 366 CEMENT--Asbestos--

Carey Manufacturing Co., The Philip, 415 E. Pearl St., Cincinnati, Ohio.  
 Chicago Fire Proof Covering Co., Chicago, Ill.  
 Franklin Manufacturing Co., Franklin, Pa.  
 Johns Manufacturing Co., H. W., 100 Williams St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McConnell & Co., John A., Pittsburg, Pa.  
 New York Fire Proof Covering Co., 26 Cortlandt St., New York.  
 TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St., St. Louis, Mo. See ad. page A 5.  
 Watson Co., H. F., Erie, Pa.  
 York Chemical Co., York, Pa.

## 367 CEMENT--Asphalt Paving--

TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St., St. Louis, Mo. See ad. page A 5.

## 368 CEMENT--Belt--

Bradford Belting Co., Cincinnati, Ohio.  
 Holbrook, A. & C. W., Providence, R. I.  
 Jewell Belting Co., Hartford, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Munson Belting Co., Charles, 36 S. Canal St., Chicago, Ill.  
 Russia Cement Co., Gloucester, Mass.  
 Schultz Belting Co., St. Louis, Mo.  
 Warren Manufacturing Co., 26 Jackson St., Chicago, Ill.

## 369 CEMENT--Coal Tar Paving--

TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St., St. Louis, Mo. See ad. page A 5.

## 370 CEMENT--Fireproof--

Johns Manufacturing Co., H. W., 100 William St., New York.

## 371 CEMENT--Hydraulic--

Anniston Lime & Stone Co., New Orleans, La.  
 CONSOLIDATED COAL & LIME CO., Indianapolis, Ind.  
 Cowell & Co., Henry, San Francisco, Cal.  
 Cumberland Hydraulic Cement & Manufacturing Co., Cumberland, Md.  
 Gumbo Cement Co., Chicago, Ill.  
 Lawrenceville Cement Co., 26 Cortlandt St., New York.  
 New York Cement Co., Lefever Falls, New York.  
 Norton Cement Co., F. O., 92 Broadway, New York.  
 Obermayer Co., S., Cincinnati, Ohio.

372 CEMENT—Leather—

Ellert, C. H., Evansville, Ind.  
Major, A., 461 Pearl St., New York.  
Martell Co., 225 Dearborn St., Chicago, Ill.  
Page Belting Co., Concord, N. H.

373 CEMENT—Louisville—

Consolidated Coal & Lime Co., Indianapolis, Ind.  
GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.  
See ad. page A 2.  
Western Cement Co., 247 W. Main St., Louisville, Ky.

374 CEMENT—Portland—

Alsen's Portland Cement Works, 143 Liberty St., New York.  
American Cement Co., 22 S. 15th St., Philadelphia, Pa.  
Atlas Portland Cement Co., 143 Liberty St., New York.  
Bellefontaine Portland Cement Co., Bellefontaine, Ohio.  
Bonneville Cement Co., Real Estate Trust Bldg., Philadelphia, Pa.  
Brier Hill Iron & Coal Co., Youngstown, Ohio.  
Buckeye Portland Cement Co., Bellefontaine, Ohio.  
Buffalo Cement Co. (Ltd.), 110 Mankin St., Buffalo, N. Y.  
Castalia Portland Cement Co., Pittsburg, Pa.  
Commercial Wood & Cement Co., Girard Bldg., Philadelphia, Pa.  
CONSOLIDATED COAL & LIME CO., Indianapolis, Ind.  
Cummings Cement Co., Akron, N. Y.  
Donaldson, William J., 503 Betz Bldg., Philadelphia, Pa.  
Empire Portland Cement Co., Warners, N. Y.  
GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.  
See ad. page A 2.  
Glens Falls Portland Cement Co., Glens Falls, N. Y.  
Hall, Charles W., 26 Cortlandt St., New York.  
Hartranft Cement Co., William G., Philadelphia, Pa.  
Iola Co., Iola, Kas.  
Johnson & Wilson, 150 Nassau St., New York.  
Kelley Island Lime & Transport Co., Cleveland, Ohio.  
Lawrence Cement Co., 1 Broadway, New York.  
Lehigh Portland Cement Co., Allentown, Pa.  
Thorn Cement Co., 112 Church St., Buffalo, N. Y.  
Warner Co., Charles, 66 Maiden Lane, New York.

375 CEMENT—Roofing—

Carey Manufacturing Co., The Philip, 415 E. Pearl St., Cincinnati.  
Garry Iron & Steel Roofing Co., Cleveland, Ohio.  
Hart Manufacturing Co., Troy, N. Y.  
Johns Manufacturing Co., H. W., 100 William St., New York.  
New York Roofing Co., 437 E. 23d St., New York.  
TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
St. Louis, Mo. See ad. page A 5.

376 CEMENT—Rosendale—

Bonneville Cement Co., Real Estate Trust Bldg., Philadelphia, Pa.  
Commercial Wood & Cement Co., Girard Bldg., Philadelphia, Pa.  
Cumberland Hydraulic Cement & Manufacturing Co., P. O. Box  
264, Cumberland, Md.  
Cummings Cement Co., Akron, N. Y.

## 376 CEMENT—Rosendale—Continued.

Fort Scott Cement Association, Kansas City, Mo.  
 GARDEN CITY SAND CO., Chicago, Ill. See ad. page A 2.  
 Johnson & Wilson, 150 Nassau St., New York.  
 Lawrence Cement Co., 1 Broadway, New York.  
 Lawrenceville Cement Co., 26 Cortlandt St., New York.  
 Lesley & Trinkle, 22 S. 15th St., Philadelphia, Pa.  
 Meacham & Wright, Chamber of Commerce Bldg., Chicago, Ill.  
 Milwaukee Cement Co., Milwaukee, Wis.  
 New York & Rosendale Cement Co., 280 Broadway, New York.  
 Norton Cement Co., F. O., 92 Broadway, New York.  
 Tomkins, Calvin, 120 Liberty St., New York.  
 Union Akron Cement Co., 141 Erie St., Buffalo, N. Y.  
 Western Cement Co., Louisville, Ky.

## 377 CEMENT—Rubber—

Boston Belting Co., Boston, Mass.  
 Carey Manufacturing Co., The Philip, 415 E. Pearl St., Cincinnati.  
 Detroit White Lead Works, Detroit, Mich.  
 Ellert, C. H., Evansville, Ind.  
 Hawthaway, C. L., Boston, Mass.  
 Major, A., 461 Pearl St., New York.  
 National Cement & Rubber Manufacturing Co., Toledo, Ohio.  
 New York Belting & Packing Co., 25 Park Place, New York.  
 Shepard & Co., George A., Bethel, Conn.

## 378 CEMENT—Steam Fitters'—

Crane Co., 10 Jefferson St., Chicago, Ill.  
 Gumbo Cement Co., The, 161 Lake St. Chicago, Ill.  
 Otley Cement Co., The, Chicago, Ill.

## 379 CENTER PLATES—

Pressed Steel Car Co., Pittsburg, Pa.  
 Standard Railway Equipment Co., 706 Great Northern Bldg.,  
 Chicago, Ill.

## 380 CENTER PLATES—Lubricating—

Dayton Malleable Iron Co., The, Dayton, Ohio.

## 381 CHAINS—

American Iron & Steel Co., Pittsburg, Pa.  
 AMERICAN STEEL & WIRE CO., The Rookery, Chicago, Ill.  
 See ad. inside front cover.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Jeffrey Manufacturing Co., Columbus, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

381 CHAINS—Continued.

Link-Belt Machinery Co., Chicago, Ill.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Standard Chain Co., Pittsburg, Pa.  
 West End Rolling Mill Co. & Chain Works, Lebanon, Pa.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

382 CHAINS—Cable—

Baker Chain & Wagon Iron Manufacturing Co., Allegheny, Pa.  
 Carr Co., J. B., Troy, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Nes Chain Manufacturing Co., York, Pa.  
 Schmidt & Co., John C., York, Pa.  
 Trenton Iron Co., Trenton, N. J.

383 CHAINS—Coll—

Bridgeport Chain Co., Bridgeport, Conn.  
 H. P. Nail Co., Cleveland, Ohio.  
 Jeffrey Manufacturing Co., Columbus, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McKay & Co., James, Pittsburg, Pa.  
 Schmidt & Co., John C., York, Pa.

384 CHAINS—Crane—

Baker Chain & Wagon Iron Manufacturing Co., Allegheny, Pa.  
 Bradlee & Co., Beach St. and E. Susquehanna Ave., Philadelphia.  
 Carr Co., J. B., Troy, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McKay & Co., James, Pittsburg, Pa.  
 Robson & Son, John, Pittsburg, Pa.  
 Trenton Iron Co., Trenton, N. J.

385 CHAINS—Dredging—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Philadelphia Roll & Machine Co., 23d St. and Wash. Ave., Philadelphia, Pa.  
 West End Rolling MHI Co. & Chain Works, Lebanon, Pa.

386 CHAINS—Iron—

Alden, W. G., Camden, Me.  
 Carpenter & Co., Geo. B., 208 Water St., Chicago, Ill.  
 Carr Co., J. B., Troy, N. Y.  
 H. P. Nail Co., Cleveland, Ohio.  
 Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
 Jeffrey Manufacturing Co., Columbus, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

387 CHAINS—Link-Belt—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Link-Belt Machinery Co., Chicago, Ill.



388 CHAINS—Log—

Carr Co., J. B., Troy, N. Y.  
 Covert Manufacturing Co., W. Troy, N. Y.  
 Jeffrey Manufacturing Co., Columbus, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Schmidt & Co., John C., York, Pa.  
 West End Rolling Mill Co. & Chain Works, Lebanon, Pa.

389 CHAINS—Railway—

AMERICAN STEEL & WIRE CO., The Rookery, Chicago, Ill.  
 See ad. inside front cover.  
 Bradlee & Co., Beach St. and E. Susquehanna Ave., Philadelphia.  
 Carr Co., J. B., Troy, N. Y.  
 Creamer & Co., W. G., New York.  
 Estabrook's Sons, R., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McKay & Co., James, Pittsburg, Pa.  
 Nes Chain Manufacturing Co., York, Pa.

390 CHAINS—Safety—

Baker Manufacturing Co., James H., Pittsburg, Pa.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 Nes Chain Manufacturing Co., York, Pa.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Plume & Atwood Manufacturing Co., Waterbury, Conn.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Steel Car Forge Co., Bank of Commerce Bldg., Pittsburg, Pa.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

391 CHAINS—Steel—

Carr Co., J. B., Troy, N. Y.  
 Jeffrey Manufacturing Co., Columbus, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Link-Belt Machinery Co., Stewart Ave., Chicago, Ill.  
 Morton, Thomas, 65 Elizabeth St., New York.

392 CHAINS—Surveyors'—

Gurley, W. & L. E., Troy, N. Y.  
 Queen & Co., 1010 Chestnut St., Philadelphia, Pa.

**393 CHAIRS—Head—**

Ajax Forge Co., 138 Jackson Boulevard, Chicago, Ill.  
 Allentown Rolling Mills, Allentown, Pa.  
 Bowler & Co., Cleveland, Ohio.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Cleveland Frog & Crossing Co., Cleveland, Ohio.  
 Dayton Malleable Iron Co., Dayton, Ohio.  
 ELLIOT FROG & SWITCH CO., E. St. Louis, Ill. See ad. page A 5.  
 Fulton Foundry Co., Cleveland, Ohio.  
 Huebel & Manger, 236 Graham St., Brooklyn, N. Y.  
 Indianapolis Switch & Frog Co., The, Springfield, Ohio.  
 Johnston Railroad Frog & Switch Co., Chester, Pa.  
 Kenney & Co., Scottdale, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Louisville Bridge & Iron Co., Louisville, Ky.  
 MORDEN FROG & CROSSING WORKS, The Rookery, Chicago, Ill. See ad. page A 5.  
 New York Switch & Crossing Co., Hoboken, N. J.  
 Peacock's Iron Works, Selma, Ala.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pettibone, Mulliken & Co., 725 Marquette Bldg., Chicago, Ill.  
 Ramapo Iron Works, Hillburn, N. Y.  
 Sheffield Car Co., Three Rivers, Mich.  
 Steele & Sons, J. C., Statesville, N. C.  
 Union Switch & Signal Co., Swissvale, Pa.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Weir Frog Co., Cincinnati, Ohio.  
 Wharton & Co., Wm., Jr., 308 Walnut St., Philadelphia, Pa.

**394 CHAIRS—Office—**

American Desk Co., 18 E. Van Buren St., Chicago, Ill.  
 Buckstaff-Edwards Co., Oshkosh, Wis.  
 Barnes & Bro., E., 198 Canal St., New York.  
 Crocker Chair Co., Sheboygan, Wis.  
 Cutler & Son, A., 166 Pearl St., Buffalo, N. Y.  
 Delaware Chair Co., Delaware, Ohio.  
 Derby & Co., Philander, West Gardner, Mass.  
 Derby Desk Co., 138 Portland St., Boston, Mass.  
 Ford, Johnson & Co., J. S., Indiana Ave. and 16th St., Chicago.  
 Grand Rapids School Furniture Co., Grand Rapids, Mich.  
 Milwaukee Chair Co., Milwaukee, Wis.  
 Parkersburg Chair Co., Parkersburg, W. Va.  
 Scarritt, Comstock & Co., St. Louis, Mo.  
 Stomps-Burkhardt Co., Dayton, Ohio.  
 U. S. Desk, File & Cabinet Co., 255 Highland Ave., Indianapolis.

**395 CHAIRS—Railway Car—**

Adams & Westlake Co., Ontario and N. Franklin Sts., Chicago.  
 Creamer & Co., W. G., 96 John St., New York.  
 Johnson Chair Co., 233 N. Green St., Chicago, Ill.  
 Marks' Adjustable Chair Co., 1144 Broadway, New York.  
 Scarritt, Comstock & Co., St. Louis, Mo.

**396 CHAIRS—Reclining Car—**

Marks' Adjustable Chair Co., 1144 Broadway, New York.  
Scarritt, Comstock & Co., St. Louis, Mo.

**397 CHAIRS—Typewriter—**

Scarritt, Comstock & Co., St. Louis, Mo.  
Stomps-Burkhardt Co., Dayton, Ohio.  
U. S. Desk, File & Cabinet Co., 255 Highland Ave., Indianapolis.

**398 CHANDELIERS—Car—**

Buck Manufacturing Co., M. M., St. Louis, Mo.  
Consolidated Car Heating Co., Albany, N. Y.  
Dayton Manufacturing Co., Dayton, Ohio.  
Safety Car Heating & Lighting Co., 160 Broadway, New York.  
Smith, Charles G., 350 Pearl St., New York.

**399 CHARCOAL—**

Bayless & Berkalew, Binghamton, N. Y.  
Binney & Smith, 257 Pearl St., New York.  
McCormick Co., J. S., Pittsburg, Pa.  
Merrill, Edward M., 548 W. 25th St., New York.  
Obermayer Co., S., Cincinnati, Ohio.  
Otto Chemical Co., Williamsport, Pa.  
Walcott & Co., E. F., Marlboro, Mass.

**400 CHARTS—Time Table—**

Rand-Avery Supply Co., Boston, Mass.

**401 CHECKS—Baggage—Brass—**

Brass Goods Manufacturing Co., 117 Chambers St., New York.  
Carragan, George, 35 Beekman St., New York.  
Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
Ness, George M., Jr., 61 Fulton St., New York.  
Plume & Atwood Manufacturing Co., Waterbury, Conn.  
Quint & Son, S. H., 15 S. Water St., Philadelphia, Pa.  
Scovill Manufacturing Co., Waterbury, Conn.  
Waterbury Brass Co., Waterbury, Conn.  
Wheeling Hinge Co., Wheeling, W. Va.  
Woodman Manufacturing & Supply Co., The, 63 Oliver St., Boston, Mass.

**402 CHECKS—Baggage—Paper and Cloth—**

Dennison Manufacturing Co., Boston, Mass.

**403 CHECK RINGS—Brass—**

American Railway Supply Co., 24 Park Place, New York.

**404 CHECK STRAPS—Baggage—**

Warren Co., J. J., Worcester, Mass.  
Woodman Manufacturing & Supply Co., The, Boston, Mass.

**405 CHIMNEYS—Lamp—**

Adams & Westlake Co., Ontario and N. Franklin Sts., Chicago.  
American Lamp Chimney Co., Toledo, Ohio.  
Challinor, Taylor & Co., Pittsburg, Pa.  
Consolidated Lamp & Glass Co., Coraopolis, Pa.

405 CHIMNEYS—Lamp—Continued.

Corning Glass Works, Corning, N. Y.  
 De La Chapelle & Co., E., Ottawa, Ill.  
 Dithridge & Co., Pittsburg, Pa.  
 Gill & Co., York and Thompson Sts., Philadelphia, Pa.  
 Gill Bros. & Co., Steubenville, Ohio.  
 Gillinder & Sons, 135 Oxford St., Philadelphia, Pa.  
 Gleason Manufacturing Co., E. P., New York.  
 Hormann & Son, F., 2657 Salmon St., Philadelphia, Pa.  
 Kreutzer & Co., John J., Peru, Ind.  
 Lippincott Glass Co., Alexandria, Ind.  
 Long Island Flint Glass Works, Maujer St., Brooklyn, N. Y.  
 Lovell & Co., F. H., 118 John St., New York.  
 McKee & Co., S., Pittsburg, Pa.  
 Murray & Co., J. J., Trenton Ave., c. E. Willard, Philadelphia, Pa.  
 Union Glass Co., 36 India St., Boston, Mass.

406 CHIMNEYS—Lamp—Mica—

Storrs & Co., A. P., Oswego, N. Y.

A406 CHIMNEY TOPS—

AMERICAN CLAY MANUFACTURING CO. OF NEW JERSEY,  
 Pittsburg, Pa. See ad. page A 1.

407 CHISELS—Carpenters'—

American Axe & Tool Co., Pittsburg, Pa.  
 American Wood Working Machine Co., 141 Broadway, New York.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Bros., Millbury, Mass.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Jennings & Co., C. E., 79 Reade St., New York.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Ohio Tool Co., Columbus, Ohio.  
 Peck, Stow & Wilcox Co., Southington, Conn.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Snell Manufacturing Co., Fiskdale, Mass.  
 Wheeling Hinge Co. (Inc.), Wheeling, W. Va.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

408 CHISELS—Cold—

Anderson & Sons, William H., Detroit, Mich.  
 Atha Tool Co., Newark, N. J.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.

## 408 CHISELS—Cold—Continued.

Dicke Tool Co., Downers Grove, Ill.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Harvey, Henry H., 105 High St., Boston, Mass.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Peck, Stow & Wilcox Co., Southington, Conn.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Stortz & Son, John, 210 Vine St., Philadelphia, Pa.  
 Vaughan & Bushnell, 877 Carroll Ave., Chicago, Ill.  
 Whitman & Barnes Manufacturing Co., Akron, Ohio.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 409 CHISELS—Mortising—

CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 Greenlee Bros. & Co., 225 W. 12th St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 410 CHISELS—Track—

Atha Tool Co., Newark, N. J.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Cheney Hammer Co., Henry, Little Falls, N. Y.  
 Collins Co., Collinsville, Conn.  
 Crerar, Adams & Co., Chicago, Ill.  
 DETROIT STEEL & SPRING CO., THE, Detroit, Mich. See ad. page A 8.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Harvey, H. H., Boston, Mass.  
 Heller Tool Co., Newark, N. J.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pedrick & Ayer Co., 1001 Hamilton St., Philadelphia, Pa.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Plumb, Fayette R., Tucker and James Sts., Philadelphia, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Verona Tool Works, Pittsburg, Pa.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

411 CHUCKS—Drill—

Cushman Chuck Co., The, Hartford, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pratt Chuck Co., Frankfort, N. Y.  
 Standard Tool Co., Cleveland, Ohio.  
 Westcott Chuck Co., Oneida, N. Y.

412 CHUCKS—Lathe—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Westcott Chuck Co., Oneida, N. Y.

413 CHUCKS—Ring—Grinding—

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago,  
 Ill. See ad. page B 2.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

414 CHUCKS—Stay Bolt—

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago,  
 Ill. See ad. page B 2.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Western Railway Equipment Co., St. Louis, Mo.

415 CHUCKS—Tapping—

Errington, F. A., 39 Cortlandt St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Saunder's Sons, D., Yonkers, N. Y.

416 CHUTES—Coal—

Dickson Manufacturing Co., Scranton, Pa.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Kenney & Co., Scottdale, Pa.  
 Lansing Wheelbarrow Co., Lansing, Mich.  
 Wheeling Hinge Co., Wheeling, W. Va.  
 Williams, White & Co., Moline, Ill.

417 CLAMPS—Adjustable—

Armstrong Manufacturing Co., Bridgeport, Conn.  
 Dann Bros. & Co., 80 Franklin St., New Haven, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pearson Jack Co., Boston, Mass.

418 CLAMPS—Belt—

Billings & Spencer Co., Hartford, Conn.  
 Crescent Manufacturing Co., Cleveland, Ohio.  
 Hoggson & Pettis Manufacturing Co., New Haven, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Vulcan Iron Works, Wilkesbarre, Pa.

419 CLAMPS—Bolt—

Vulcanus Forging Co., The, 965 Hamilton St., Cleveland, Ohio.

420 CLAMPS—Brake Beam—

Pearson Jack Co., Boston, Mass.

421 CLAMPS—Cabinet Makers' and Carpenters'—

Grand Rapids Hand Screw Co., Grand Rapids, Mich.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Ohio Tool Co., Columbus, Ohio.  
Stearns & Co., E. C., Syracuse, N. Y.  
Tatum Co., Samuel C., Water and John Sts., Cincinnati, Ohio.

422 CLAMPS—Guard Rail—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
MORDEN FROG & CROSSING WORKS, The Rookery, Chicago, Ill. See ad. page A 5.  
Pennsylvania Steel Co., Steelton, Pa.

423 CLAMPS—Hose—

Belknap Manufacturing Co., Bridgeport, Conn.  
Clancy, J. R., Syracuse, N. Y.  
Dayton Malleable Iron Co., The, Dayton, Ohio.  
Haydenville Manufacturing Co., 73 Beekman St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

424 CLAMPS—Machinists'—

Armstrong Manufacturing Co., Bridgeport, Conn.  
Chester Steel Castings Co., Philadelphia, Pa.  
Cincinnati Tool Co., Pearl and Ludlow Sts., Cincinnati, Ohio.  
Eberhard Manufacturing Co., Cleveland, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Pratt & Letchworth Co., Buffalo, N. Y.  
Woodruff & Sons, Walter W., Mount Carmel, Conn.  
Wrightsville Hardware Co., Wrightsville, Pa.

425 CLAMPS—Vise—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Le Count, William G., South Norwalk, Conn.  
Prentiss Vise Co., New York.

426 CLAY—Fire—

AMERICAN CLAY MANUFACTURING CO. OF NEW JERSEY, Pittsburg, Pa. See ad. page A 1.  
Birmingham Fire Brick Works, Birmingham, Ala.  
Christy Fire Clay Co., Laclede Bldg., St. Louis, Mo.  
Cincinnati Sewer Pipe Co., Elm and Water Sts., Cincinnati, Ohio.  
Clark & Sons (Inc.), N., San Francisco, Cal.  
Crown Fire Clay Co., Akron, Ohio.  
Denver Fire Clay Co., Denver, Col.  
GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.  
See ad. page A 2.  
Great Western Fire Clay Co., Toronto, Ohio.  
Kreischer & Sons, B. (Inc.), 119 E. 23d St., New York.  
Maurer & Son, Henry, 420 E. 23d St., New York.  
Pacific Clay Manufacturing Co., Los Angeles, Cal.  
Parker-Russell Mining & Manufacturing Co., The, St. Louis, Mo.  
Pioneer Fire Proof Construction Co., Ottawa, Ill.  
Sandy Ridge Fire Brick Co., Sandy Ridge, Pa.  
Stevens Sons Co. H., Macon, Ga.

426 CLAY—Fire—Continued.

Stuart Fire Brick Co., Conestoga Bldg., Pittsburg, Pa.  
Walker Clay Manufacturing Co., N. U., Walkers, Ohio.  
Wassall Fire Clay Co., Columbus, Ohio.  
Williams Co., N. A., 219 Washington St., Chicago, Ill.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

A426 CLEANERS—Boiler—

Barnum Bros. Co., Troy, N. Y.  
Hotchkiss, J. F., 110 Liberty St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Oakes, Wm. L., Decatur Ill.  
Sherwood Manufacturing Co., Buffalo, N. Y.

427 CLEANERS—Flue—

Chesterton & Co., A. W., 49 India St., Boston, Mass.  
Cleveland Flue Cleaner Manufacturing Co., Cleveland, Ohio.  
Essex Bros. Manufacturing Co., Detroit, Mich.  
Farles Manufacturing Co., Decatur, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Pedrick & Ayer Co., 1001 Hamilton St., Philadelphia, Pa.  
Regester & Sons, J., Baltimore, Md.  
Robertson & Sons, James L., 204 Fulton St., New York.  
Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.

428 CLEANING COMPOUND—Car—

India Alkali Works, Boston, Mass.  
Koko Cream Co., 71 Broadway, New York.  
Modoc Soap Co., Cincinnati, Ohio.  
Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.

429 CLIPS—Hose—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Williams & Son, E. A., Jersey City, N. J.

430 CLIPS—Wire Rope—

American Holst & Derrick Co., St. Paul, Minn.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

431 CLOCKS—

Ansonia Clock Co., 11 Cliff St., New York.  
Bridgeport Brass Co., Bridgeport, Conn.  
Durfee & Co., Walter H., Providence, R. I.  
Howard Watch & Clock Co., E., Boston, Mass.  
Ithaca Calendar Clock Co., Ithaca, N. Y.  
New Haven Clock Co., New Haven, Conn.  
Parker Clock Co., Meriden, Conn.  
Thomas Clock Co., Seth, Thomaston, Conn.  
Waltham Clock Co., Waltham, Conn.  
Waterbury Clock Co., 10 Cortlandt St., New York.  
Western Clock Manufacturing Co., La Salle, Ill.

432 CLOCKS—Electric—

Edwards & Co., 144th St. and 4th Ave., New York.  
Howard Watch & Clock Co., E., Washington St., Boston, Mass.  
Prentiss Clock Improvement Co., 49 Dey St., New York.  
Stephen Electric Co., 3500 Avenue A, New York.



## 433 CLOCKS—Locomotive—

Ashcroft Manufacturing Co., 85 Liberty St., New York.  
 Crosby Steam Gage & Valve Co., Oliver St., Boston, Mass.  
 Marsh & Co., James P., 224 Washington St., Chicago, Ill.  
 Schaffer & Budenburg, Brooklyn, N. Y.  
 Thomas Clock Co., Seth, Thomaston, Conn.  
 Welch Manufacturing Co., E. N., Forestville, Conn.

## 434 CLOCKS—Marine—

American Steam Gauge Co., Boston, Mass.  
 Ashcroft Manufacturing Co., 85 Liberty St., New York.  
 Crosby Steam Gage & Valve Co., Oliver St., Boston, Mass.  
 Marsh & Co., James P., 224 Washington St., Chicago, Ill.  
 Thomas Clock Co., Seth, Thomaston, Conn.  
 Waterbury Clock Co., 10 Cortlandt St., New York.

## 435 CLOCKS—Watchmen's—

Edwards & Co., 144th St. and 4th Ave., New York.  
 Howard Watch & Clock Co., E., Washington St., Boston, Mass.

## 436 CLOCKS—Watchmen's Electric—

American Watchman's Time Detector Co., 234 Broadway, New York.  
 Hersey Manufacturing Co., South Boston, Mass.  
 New Haven Clock Co., New Haven, Conn.

## 437 CLOSETS—Car—

Adams & Westlake Co., Ontario and N. Franklin Sts., Chicago, Ill.  
 Dayton Manufacturing Co., Dayton, Ohio.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Howard & Co., James L., Hartford, Conn.

## 438 CLOTH—Asbestos—

Keasbey & Mattison Co., Ambler, Pa.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.

## 439 CLOTH—Battery Wire—

Eastwood Wire Manufacturing Co., Belleville, N. J.  
 Howard & Morse, 45 Fulton St., New York.  
 Wright & Colton Wire Cloth Co., Worcester, Mass.

## 440 CLOTH—Brass Wire—

Cheney-Bigelow Wire Works, Springfield, Mass.  
 Clinton Wire Cloth Co., Clinton, Mass.  
 De Witt Wire Cloth Co., 17 Warren St., New York.  
 Gilbert & Bennett Manufacturing Co., 44 Cliff St., New York.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Meyers Manufacturing Co., Fred J., Hamilton, O.  
 Michigan Wire & Iron Works, Detroit, Mich.  
 Tyler Co., The W. S., Cleveland, O.  
 Wright & Colton Wire Cloth Co., Worcester, Mass.

## 441 CLOTH—Bronze Wire—

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Tyler Co., The W. S., Cleveland, O.

442 CLOTH—Copper Wire—

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Tyler Co., The W. S., Cleveland, O.

443 CLOTH—Emery—

Baeder, Adamson & Co., 730 Market St., Philadelphia, Pa.  
Barton & Son Co., H. H., 222 Market St., Philadelphia, Pa.  
Behr & Co., Herman, 75 Beekman St., New York.  
Bostwick-Braum Co., The, Toledo, O.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
James & Co. (Inc.), Chattanooga, Tenn.  
KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
Northampton Emery Wheel Co., 20 S. Canal St., Chicago, Ill.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
Standard Emery Wheel Co., Albany, New York.  
Standard Flint Paper Co., Arlington, N. J.  
Sterling Emery Wheel Co., Tiffin, O.  
Walpole Emery Mills, South Walpole, Mass.  
Washington Mills Emery Mfg. Co., North Grafton, Mass.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

444 CLOTH—Flint—

Baeder, Adamson & Co., 730 Market St., Philadelphia, Pa.  
Behr & Co., Herman, 75 Beekman St., New York.  
KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.

445 CLOTH—Galvanized Wire—

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Tyler Co., The W. S., Cleveland, O.

A445 CLOTH—Hair—

McKay Curtain Co., Wilmington, Del.

446 CLOTH—Iron Wire—

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Meyers Manufacturing Co., Fred J., Hamilton, O.

447 CLOTH—Steel Wire—

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Tyler Co., The W. S., Cleveland, O.

448 CLOTH—Wire—

Barbee Wire & Iron Works, 44 Dearborn St., Chicago, Ill.  
Bromwell Brush & Wire Goods Co., Cincinnati, O.  
Clinton Wire Cloth Co., Clinton, Mass.

## 448 CLOTH—Wire—Continued.

De Witt Wire Cloth Co., 17 Warren St., New York.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Howard & Morse, 45 Fulton St., New York.  
 Kansas City Wire & Iron Works, Kansas City, Mo.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Ludlow-Saylor Wire Co., 116 S. 4th St., St. Louis, Mo.  
 Meyers Manufacturing Co., Fred J., Hamilton, O.  
 Michigan Wire & Iron Works, Detroit, Mich.  
 Nordyke & Marmon Co., Indianapolis, Ind.  
 Phosphor Bronze Smelting Co. (Ltd.), 2200 Wash. Ave., Philadelphia, Pa.  
 Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.  
 Stamar & Laffey Wire Co., Harrison, N. J.  
 Tyler Co., The W. S., Cleveland, O.

## 449 CLUTCHES—Friction—

Akron Iron & Steel Co., 206 Fulton St., New York.  
 American Tool & Machine Co., Boston, Mass.  
 Brown & Sharpe Manufacturing Co., Providence, R. I.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Dodge Manufacturing Co., Mishawaka, Ind.  
 Fairbanks, Morse & Co., Franklin and Monroe Sts., Chicago, Ill.  
 Hill Clutch Co., Cleveland, O.  
 Howard Iron Works, Buffalo, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Poole & Son Co., Robert, Baltimore, Md.  
 Vulcan Iron Works, Wilkes-Barre, Pa.

## 450 CLUTCHES—Jaw—

Howard Iron Works, Buffalo, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Link-Belt Machinery Co., Chicago, Ill.

## 451 COAL—Anthracite—

American Coal Co., 1 Broadway, New York.  
 CONSOLIDATED COAL & LIME CO., Indianapolis, Ind.  
 Consolidation Coal Co. of Maryland, Baltimore, Md.  
 Coxe Bros. & Co. (Inc.), 143 Liberty St., New York.  
 Crescent Coal & Mining Co., The Rookery, Chicago, Ill.  
 Delaware, Lackawanna & Western R. R. Co., 26 Exchange Place, New York.  
 Haddock, Shonk & Co., 1 Broadway, New York.  
 Lehigh & Wilkes-Barre Coal Co., 143 Liberty St., New York.  
 Lehigh Valley Coal Co., 228 S. 3d St., Philadelphia, Pa.  
 N. Y., L. E. & W. R. R. Co., New York.  
 Pennsylvania Coal Co., 1 Broadway New York.  
 Philadelphia & Reading Coal & Iron Co., 12th & Market Sts., Philadelphia, Pa.  
 Stickney, Conyngham & Co., 1 Broadway, New York.  
 Swords & Co., A. S., 1 Broadway, New York.  
 Van Wickle & Co., 1 Broadway, New York.  
 Whitney & Kemmerer, Terminal Bldg., Philadelphia, Pa.

452 COAL—Bituminous—

Baltimore & Ohio Coal Co., Columbus, O.  
 Berwind-White Coal Mining Co., DuBois, Pa.  
 Black, Sheridan & Wilson, Baltimore, Md.  
 Borden & Lavell, 70 West St., New York.  
 Cambria Mining Co., Cambria, Wyo.  
 Castner, Curran & Bullitt, 1 Broadway, New York.  
 Chesapeake & Ohio Coal Agency Co., 1 Broadway, New York.  
 Clearfield Bituminous Coal Corporation, 1 Broadway, New York.  
 CONSOLIDATED COAL & LIME CO., Indianapolis, Ind.  
 Consolidated Coal & Mining Co., Cincinnati, O.  
 Consolidation Coal Co. of Maryland, Baltimore, Md.  
 Consolidated Coal Co. of St. Louis, St. Louis, Mo.  
 Davis Coal & Coke Co., Piedmont, W. Va.  
 Fall Brook Coal Co., Corning, N. Y.  
 Fluhart Coal & Mining Co., Wellston, O.  
 Howard, J. Z., San Francisco, Cal.  
 Inter-State Coal & Coke Co., Baltimore, Md.  
 Irvona Coal Co., Real Estate Bldg., Philadelphia, Pa.  
 Island Coal Co., Indianapolis, Ind.  
 Kettle Creek Coal Mining Co., Williamsport, Pa.  
 Kilpatrick Bros. & Collins, Cambria, Wyo.  
 Luhrig Coal Co., 4th & Plum Sts., Cincinnati, O.  
 Maryland Coal Co., 35 Broadway, New York.  
 Montana Coal & Coke Co., Fairmount, W. Va.  
 Morrisdale Coal Co., 1 Broadway, New York.  
 Morris Run Coal Mining Co., Corning, N. Y.  
 New Central Coal Co. of Maryland, 1 Broadway, New York.  
 New York & Cleveland Gas Coal Co., Pittsburg, Pa.  
 N. Y., L. E. & W. R. R. Co., New York.  
 Osborn Sager Coal Transit Co., Cleveland, O.  
 Pittsburg-Wheeling Coal Co., Cleveland, O.  
 Rochester & Pittsburg Coal & Iron Co., Rochester, N. Y.  
 Seattle Coal & Iron Co., Seattle, Wash.  
 Sunday Creek Coal Co., Columbus, O.  
 Tennessee Coal, Iron & R. R. Co., Birmingham, Ala.  
 Westmoreland Coal Co., 224 S. 3d St., Philadelphia, Pa.  
 Winifrede Coal Co., 218 S. 4th St., Philadelphia, Pa.

453 COAL—Cannel—

Brazil Block Coal Co., Brazil, Ind.  
 Consolidated Coal & Mining Co., Cincinnati, O.  
 Southern Ohio Coal Co., Dayton, O.

454 COAL STORAGE PLANTS—

Dodge Coal Storage Co., The, Nicetown, Philadelphia, Pa.  
 Link-Belt Machinery Co., Chicago, Ill.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

455 COALING STATIONS—Locomotive—

Fairbanks, Morse & Co., Chicago, Ill.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Williams, White & Co., Moline, Ill.

A455 COAL TIPPLES & TRETTLES—Steel Frame—  
SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

456. COCKS—Blow-off—

Jerome, C. C., 35 S. Canal St., Chicago, Ill.  
Standard Pneumatic Tool Co., Chicago, Ill.  
Western Railway Equipment Co., St. Louis, Mo.

457 COKE—

Berwind-White Coal Mining Co., DuBois, Pa.  
Colorado Coal & Iron Co., Denver, Colo.  
Davis Coal & Coke Co., Piedmont, W. Va.  
Despard Gas Coal Co., Baltimore, Md.  
Diamond Coal & Coke Co., Diamondville, Wyo.  
Frick Coke Co., H. C., Pittsburg, Pa.  
Irvona Coal Co., Real Estate Bldg., Philadelphia, Pa.  
Pittsburg-Wheeling Coal Co., Cleveland, O.  
Pocahontas Coal Co., Roanoke, Va.  
Rainey, W. J., Cleveland, O.  
Rochester & Pittsburg Coal & Iron Co., Rochester, N. Y.  
Solway Process Co., Syracuse, N. Y.  
Standard Coal Co., Birmingham, Ala.  
Tennessee Coal, Iron & R. R. Co., Birmingham, Ala.  
Washington Coal & Coke Co., Pittsburg, Pa.  
Woodward Iron Co., Woodward, Ala.

458 COLLARS—Clamp—

Brown Co., A. & F., 25 Dey St., New York.  
Fairmount Machine Co., 2106 Wood St., Philadelphia, Pa.  
KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Poole & Son Co., Robert, Baltimore, Md.  
Stilwell-Bierce & Smith-Valle Co., Dayton, O.  
Thornburgh-Creel Co., 240 Jefferson St., Chicago, Ill.

459 COLLARS—Set—

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Poole & Son Co., Robert, Baltimore, Md.  
Twin City Iron Works, 307 3d St., South, Minneapolis, Minn.

460 COLLARS—Shaft—

Chickasaw Iron Works, Memphis, Tenn.  
Cresson Co., Geo. V., Philadelphia, Pa.  
Dickson Manufacturing Co., Scranton, Pa.  
Fairmount Machine Co., 2106 Wood St., Philadelphia, Pa.  
Great Western Manufacturing Co., Leavenworth, Kas.  
KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Medart Patent Pulley Co., 277 S. Canal St., Chicago, Ill.  
Poole & Son Co., Robert, Baltimore, Md.  
Stilwell-Bierce & Smith-Valle Co., Dayton, O.  
Valley Iron Works, Williamsport, Pa.

461 COLLARS—Shrink—

KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Poole & Son Co., Robert, Baltimore, Md.

462 COLUMNS—Iron—

Addyston Pipe & Steel Co., Cincinnati, O.  
 Baugher, Kurtz & Stewart (Ltd.), York, Pa.  
 Champion Iron Co., Kenton, O.  
 Chickasaw Iron Works, Memphis, Tenn.  
 Creswell Iron Works, S. J., N. 23d and Cherry Sts., Philadelphia.  
 Dearborn Foundry Co., 1525 Dearborn St., Chicago, Ill.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Emporia Foundry & Machine Works, Emporia, Kas.  
 Gillette-Herzog Manufacturing Co., Minneapolis, Minn.  
 Kansas City Wire & Iron Works, Kansas City, Mo.  
 Lombard Iron Works & Supply Co., Augusta, Ga.  
 Mansfield Machine Works, Mansfield, O.  
 Novelty Iron Works, 3120 Market St., Philadelphia, Pa.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
 Pittsburgh Bridge Co., 38th St., Pittsburgh, Pa.  
 Snead & Co. Iron Works (Inc.), Louisville, Ky.  
 Taylor & Co. (Inc.), 429 Driggs Ave., Brooklyn, N. Y.  
 Vulcan Iron Works, Wilkes-Barre, Pa.

463 COLUMNS—Steel—

Berlin Iron Bridge Co., East Berlin, Conn.  
 Gillette-Herzog Manufacturing Co., Minneapolis, Minn.  
 Shiffler Bridge Co., Pittsburgh, Pa.

464 COMBS—Graining—

Hanlon & Goodman, 57 Fulton St., New York.

465 COMPRESSORS—Air—

Allis Co., Edward P., Milwaukee, Wis.  
 American Well Works, Aurora, Ill.  
 Baird Machinery Co., U., Pittsburgh, Pa.  
 Battle Creek Steam Pump Co., Battle Creek, Mich.  
 Blake Manufacturing Co., Geo. F., 91 Liberty St., New York.  
 CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago, Ill. See ad. page B 2.  
 Clayton Air Compressor Works, 26 Cortlandt St., New York.  
 Crane Co., 10 Jefferson St., Chicago, Ill.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Franklin Air Compressor Co., Franklin, Pa.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Hammett, M. C., Troy, N. Y.  
 Ingersoll-Sergeant Drill Co. The, 26 Cortlandt St., New York.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Laidlaw-Dunn-Gordon Co., Cincinnati, O.  
 Manning, Maxwell & Moore, 85 Liberty St., New York.  
 New York Air Brake Co., 66 Broadway, New York.  
 New York Air Compressor Co., 95 Liberty St., New York.  
 Norwalk Iron Works Co., The, South Norwalk, Conn.  
 Rand Drill Co., 128 Broadway, New York.  
 St. Louis Steam Engine Co., Commercial St., St. Louis, Mo.

465 COMPRESSORS—Air—Continued.

Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.  
 Sedgwick-Fisher Co., 53 S. Clinton St., Chicago, Ill.  
 Stilwell-Bierce & Smith-Valle Co., The, Dayton, O.  
 Sullivan Machinery Co., Claremont, N. H.  
 WESTINGHOUSE AIR BRAKE CO., Pittsburg, Pa. See ad.  
 inside back cover.

466 CONDENSERS—

Allfree Mfg., Indianapolis, Ind.  
 Continental Iron Works, Calyer & West Sts., Brooklyn, N. Y.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Filer & Stowell Co. (Ltd.), Milwaukee, Wis.  
 Laidlaw-Dunn-Gordon Co., Cincinnati, O.  
 Murray Iron Works Co., Burlington, Ia.  
 Ritter-Conley Manufacturing Co., Pittsburg, Pa.  
 Stilwell-Bierce & Smith-Valle Co., Dayton, O.  
 Twin City Iron Works, Minneapolis, Minn.

467 CONDUITS—Flexible Metallic Steam Heat—

TOPPAN CO., THE J. S., Great Northern Bldg., Chicago, Ill.  
 See ad. page A 8.

468 CONTRACTORS' SUPPLIES—

Bugbee, Charles L., Hartford, Vt.  
 Contractors Plant Manufacturing Co., Buffalo, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Motley Co., Thornton N., 43 John St., New York.  
 Rand Drill Co., 128 Broadway, New York.  
 Ryan-McDonald Manufacturing Co., Baltimore, Md.

469 CONVEYORS—Apron—

Link-Belt Machinery Co., Chicago, Ill.

470 CONVEYORS—Belt—

American Tool & Machine Co., 109 Beach St., Boston, Mass.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Chain Belt Co., Milwaukee, Wis.  
 Jeffrey Manufacturing Co., Columbus, O.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Webster Manufacturing Co., 1075 W. 15th St., Chicago, Ill.

471 CONVEYORS—Coal—

Chain Belt Co., Milwaukee, Wis.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Filer & Stowell Co. (Ltd.), Milwaukee, Wis.  
 Kenney & Co., Scottsdale, Pa.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Logan & Son, Farrel, 52 Commercial St., Brooklyn, N. Y.  
 Prox & Brinkman Manufacturing Co., Terre Haute, Ind.  
 Vulcan Iron Works, Wilkes-Barre, Pa.

A 471 CONVEYORS—Freight—

Link-Belt Machinery Co., 650 Elston Ave., Chicago, Ill.

472 CONVEYORS—Rock—

Gates Iron Works, Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
Link-Belt Machinery Co., Chicago, Ill.

473 COOLERS—Water—

American Stamping Co., 103 N. 3d St., Brooklyn, N. Y.  
Heinz & Munschauer, Buffalo, N. Y.  
Jewett Manufacturing Co., John C., Buffalo, N. Y.  
Lalanc & Grosjean Manufacturing Co., 19 Cliff St., New York.  
Low Art Tile Co., Chelsea, Mass.  
Major, A., 461 Pearl St., New York.  
Manning, Bowman & Co., Meriden, Conn.  
Shepard & Co., Sidney, Buffalo, N. Y.  
Wilson & Co., F. C., 239 Lake St., Chicago, Ill.

A 473 COOLERS—Water Condensers—

Alfree Mfg. Co., Indianapolis, Ind.

474 COPING—Wall—

AMERICAN CLAY MFG. CO. OF NEW JERSEY, Pittsburg, Pa. See ad. page A 1.  
GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.  
See ad. page A 2.

475 COPPER—

Ansonia Brass & Copper Co., 19 Cliff St., New York.  
Baltimore Copper Smelting & Rolling Co., Baltimore, Md.  
Boston & Colorado Smelting Co., Denver, Col.  
Bridgeport Brass Co., Bridgeport, Conn.  
Butte & Boston Con. Mining Co., Butte, Mont.  
Colorado Smelting Co., Pueblo, Col.  
Copper Queen Con. Mining Co., 11 Cliff St., New York.  
Globe Smelting & Refining Co., Denver, Col.  
Harris & Bro., Geo. P., 62 Lake St., Chicago, Ill.  
Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
Hoyt Metal Co., Boyer Ave. and Clayton Rd., St. Louis, Mo.  
Newark Smelting & Refining Works, Newark, N. J.  
Nichols Chemical Co., 32 Liberty St., New York.  
Omaha & Grant Smelting Co., Omaha, Neb.  
Park Bro. & Co. (Ltd.), Pittsburg, Pa.  
Plume & Atwood Manufacturing Co., Waterbury, Conn.  
Revere Copper Co., 63 Franklin St., Boston, Mass.  
Waterbury Brass Co., Waterbury, Conn.

476 COPPER—Battery—

Ansonia Brass & Copper Co., 19 Cliff St., New York.  
Baltimore Copper Smelting & Rolling Co., Baltimore, Md.  
Beattie Zinc Works, Reading, Pa.  
Revere Copper Co., 63 Franklin St., Boston, Mass.

477 COPPER—Dynamo Brush—

Ansonia Brass & Copper Co., 19 Cliff St., New York.  
Bernard Co., E. G., Troy, N. Y.  
Miamisburg Electric Co., Miamisburg, O.



- 478 COPPER—Fire Box Sheets—  
Blatchford & Co., E. W., 70 N. Clinton St., Chicago, Ill.  
Hussey & Co., C. G., Pittsburg, Pa.  
Revere Copper Co., 63 Franklin St., Boston, Mass.
- 479 COPPER—Ingot—  
Great Western Smelting & Refining Co., Chicago, Ill.
- 480 COPPER—Phosphorized—  
Damascus Bronze Co., Pittsburg, Pa.
- 481 COPPER—Rods—  
AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
Ansonia Brass & Copper Co., 19 Cliff St., New York.  
Bridgeport Brass Co., Bridgeport, Conn.  
Detroit Copper & Brass Rolling Mills, Detroit, Mich.  
Randolph & Clowes, Waterbury, Conn.  
Revere Copper Co., 63 Franklin St., Boston, Mass.  
Waterbury Brass Co., Waterbury, Conn.
- 482 COPPER—Roll—  
Bridgeport Brass Co., Bridgeport, Conn.  
Chicago Brass Co., 76 Monroe St., Chicago, Ill.  
Detroit Copper & Brass Rolling Mills, Detroit, Mich.  
Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
Revere Copper Co., 63 Franklin St., Boston, Mass.  
Taunton Copper Manufacturing Co., Taunton, Mass.
- 483 COPPER—Sheet—  
Ansonia Brass & Copper Co., 19 Cliff St., New York.  
Baltimore Copper Smelting & Rolling Co., Baltimore, Md.  
Bridgeport Brass Co., Bridgeport, Conn.  
Chicago Brass Co., 76 Monroe St., Chicago, Ill.  
Detroit Copper & Brass Rolling Mills, Detroit, Mich.  
Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
Hussey & Co., C. G., Pittsburg, Pa.  
Park Bro. & Co. (Ltd.), Pittsburg, Pa.  
Revere Copper Co., 63 Franklin St., Boston, Mass.  
Rome Brass & Copper Co., Rome, N. Y.
- 484 COPYING CLOTHS—  
Webster Co., F. S., Boston, Mass.
- 485 COPYING CLOTH PADS—  
Eureka Blotter Bath Co., 1104 Owings Bldg., Chicago, Ill.
- 486 COPYING CLOTH SHEETS—  
Eureka Blotter Bath Co., 1104 Owings Bldg., Chicago, Ill.
- 487 COPYING SHEETS—  
Bailey Manufacturing Co., Hartford, Conn.  
Goodyear's India Rubber Glove Manufacturing Co., 503 Broadway, New York.  
Hill Manufacturing Co., B. B., 1020 N. Market St., Philadelphia.

488 COPYING SHEET BATHS—

Cameron, Amberg & Co., 71 Lake St., Chicago, Ill.  
Cincinnati Tool Co., Cincinnati, Ohio.  
Eureka Blotter Bath Co., 1104 Owings Bldg., Chicago, Ill.  
Hill Manufacturing Co., B. B., 1020 N. Market St., Philadelphia.  
Tatum Co., Samuel C., Cincinnati, Ohio.

489 CORD—Asbestos—

Johns Manufacturing Co., H. W., 100 William St., New York.  
KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.

490 CORD—Bell—

Bostwick-Braun Co., The, Toledo, Ohio.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Horstmann Co., William H., 2104 Spruce St., Philadelphia, Pa.  
Hunt Co., C. W., 45 Broadway, New York.  
James & Co. (Inc.), Chattanooga, Tenn.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
Ossawan Mills Co., Norwich, Conn.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Sellers Manufacturing Co., 27 W. Chicago Ave., Chicago, Ill.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
Silver Lake Co., Newtonville, Mass.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

491 CORDS—Flexible Electric—

American Electrical Works, Providence, R. I.  
AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
Bishop Gutta Percha Co., 422 E. 25th St., New York.  
Bridgeport Brass Co., Bridgeport, Conn.  
General Electric Co., Schenectady, N. Y.  
Holmes, Booth & Haydens (Inc.), Waterbury, Conn.

492 CORD—Sash—

Jacobs Cordage Co., 64 Carr St., Cincinnati, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Ossawan Mills Co., Norwich Conn.  
Phosphor Bronze Smelting Co., Philadelphia, Pa.  
Samson Cordage Works, 115 Congress St., Boston, Mass.  
Silver Lake Co., Newtonville, Mass.  
Travers Bros. Co., 107 Duane St., New York.  
Trenton Iron Co., Trenton, N. J.

A 492 CORD—Sash—Wire—

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.

493 CORDAGE—Hemp—

Bailey & Co., John T., 1136 Market St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Mount Vernon Co., Baltimore, Md.  
 Samson Cordage Works, 115 Congress St., Boston, Mass.  
 Wall, William F., 56 South St., New York.

494 CORDAGE—Manilla and Sisal—

Akron Twine & Cordage Co., Akron, Ohio.  
 Allen's Sons Rope Co., D., Brooklyn, N. Y.  
 Columbian Cordage Co., Auburn, N. Y.  
 Eagle and Phenix Manufacturing Co., Columbus, Ga.  
 Fitter Co., Edwin H., 23 N. Water St., Philadelphia, Pa.  
 Hooven & Allison Co., Xenia, Ohio.  
 Jackson & Son, Thomas, Reading, Pa.  
 Jacobs Cordage Co., 64 Carr St., Cincinnati, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lambeth Rope Co., New Bedford, Mass.  
 Lord, H. & G. W., 101 Commercial St., Boston, Mass.  
 Miamisburg Twine & Cordage Co., Miamisburg, Ohio.  
 New Bedford Cordage Co., New Bedford, Mass.  
 Portland Cordage Co., Portland, Ore.  
 Standard Rope & Twine Co., 287 Broadway, New York.  
 Tubbs Cordage Co., San Francisco, Cal.

495 CORUNDUM—

Best, L., 45 Vesey St., New York.  
 Hampden Corundum Wheel Co., Brightwood, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Standard Emery Wheel Co., Albany, N. Y.

496 COTTERS—Spring—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Brooks & Sons, M. S., Chester, Conn.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pickering, R. S., Sharon Hill, Pa.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Standard Tool Co., Cleveland, Ohio.  
 Whitman & Barnes Manufacturing Co., Akron, Ohio.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

497 COUNTERS—Revolution—

American Steam Gauge Co., Boston, Mass.  
 Ashcroft Manufacturing Co., 85 Liberty St., New York.  
 Ashton Valve Co., Boston, Mass.  
 Crosby Steam Gauge & Valve Co., Oliver St., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Star Brass Manufacturing Co., Boston, Mass.

498 COUNTERSINKS—

Cleveland Twist Drill Co., Cleveland, Ohio.  
 Deuse, Amos H. & J. S., Chester, Conn.  
 Irwin Auger Bit Co., Wilmington, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Norton & Co., H. M., Chester, Conn.  
 Snell Manufacturing Co., Fiskdale, Mass.  
 Tatum Co., Samuel C., Water St., Cincinnati, Ohio.  
 Vaughan & Bushnell Mfg. Co., 877 Carroll Ave., Chicago, Ill.  
 Wells Bros. & Co., Greenfield, Mass.

499 COUPLERS—Automatic—

(Peerless) American Mfg. Co., The, 20 Broad St., New York.  
 American Steel Casting Co., Thurlow, Pa.  
 American Steel Foundry Co., St. Louis, Mo.  
 Automatic Interchangeable Car Coupling Co., 116 S. Clinton St., Chicago, Ill.  
 Automatic Steam & Air Coupler Co., Albany, N. Y.  
 Beaver Dam Malleable Iron Co., Beaver Dam, Wis.  
 Bemis Car Box Co., Springfield, Mass.  
 (Buckeye) Buckeye Malleable Iron & Coupler Co., The, Columbus, (California) California Car Coupler Co., F. L. Wells, General Agent, 116 S. Clinton St., Chicago, Ill.  
 Dayton Malleable Iron Co., Dayton, Ohio.  
 Erie Car Works, Erie, Pa.  
 (Lone Star) Franklin Steel Casting Co., Franklin, Pa.  
 (Gould) Gould Coupler Co., New York.  
 Latrobe Steel & Coupler Co., Melrose Park, Ill.  
 (Janney) McCONWAY & TORLEY CO., THE, Pittsburg, Pa.  
 See ad. opp. first page of List.  
 (Detroit and Solid) Michigan Malleable Iron Co., Detroit, Mich.  
 (National) National Car Coupler Co., Monadnock Block, Chicago.  
 (Tower) NATIONAL MALLEABLE CASTINGS CO., THE, Cleveland, Ohio. See ad. inside front cover.  
 (Pooley) Pratt & Letchworth Co., Buffalo, N. Y.  
 (Hien) Railroad Supply Co., The, Bedford Bldg., Chicago, Ill.  
 (Ross-Meehan) Ramapo Iron Works, Hillburn, N. Y.  
 (S. H. & H.) Shickle, Harrison & Howard Iron Co., St. Louis, Mo.  
 (Smillie) Smillie Coupler & Mfg. Co., The, 91 Clay St., Newark.  
 Southern Car Coupler Co., Savannah, Ga.  
 Standard Coupler Co., 160 Broadway, New York.  
 (Trojan) Trojan Car Coupler Co., Troy, N. Y.  
 Troy Malleable Iron Co., Troy, N. Y.  
 Unity Car Coupler Co., Covington, Ky.  
 Van Dorn Co., W. T., 1520 Monadnock Block, Chicago, Ill.  
 Washburn Coupler Co., Minneapolis, Minn.  
 Wilmington Malleable Iron Co., Wilmington, Del.

**500 COUPLERS—Wire Fence—**

Racine Malleable & Wrought Iron Co., Racine, Wis.

**501 COUPLER ATTACHMENTS—**

Thornburgh Coupler Attachment Co. (Ltd.), Detroit, Mich.

**502 COUPLER LOCK LIFTER—Automatic—**

Ellis, J. A., Detroit, Mich.

**503 COUPLINGS—**

Akron Iron & Steel Co., 206 Fulton St., New York.

Allfree Manufacturing Co., J. B., Indianapolis, Ind.

Barnard & Leas Manufacturing Co., Moline, Ill.

Case Manufacturing Co., Columbus, Ohio.

Chickasaw Iron Works, Memphis, Tenn.

Comstock Manufacturing Co., Kalamazoo, Mich.

Dart Manufacturing Co., E. M., Providence, R. I.

Dickson Manufacturing Co., Scranton, Pa.

Ehram Machine Co., J. B., Enterprise, Kas.

Fairmount Machine Co., 2106 Wood St., Philadelphia, Pa.

Filer & Stowell Co. (Ltd.), Milwaukee, Wis.

Great Western Manufacturing Co., Leavenworth, Kas.

Howard Iron Works, Buffalo, N. Y.

Jones & Laughlin (Ltd.), Pittsburg, Pa.

Lane & Bodley Co., Cincinnati, Ohio.

Nicholson & Co., W. H., Wilkesbarre, Pa.

Nordyke & Marmon Co., Indianapolis, Ind.

Peck Bros. & Co., New Haven, Conn.

Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

Stillwell-Bierce & Smith-Valle Co., Dayton, Ohio.

Vulcan Iron Works, Wilkesbarre, Pa.

Walker Co., Cleveland, Ohio.

Wilcox & Howe Co., Birmingham, Conn.

**504 COUPLINGS—Bell Cord—**

American Railway Supply Co., 24 Park Place, New York.

Bostwick-Braun Co., The, Toledo, Ohio.

Buck Manufacturing Co., M. M., St. Louis, Mo.

Cahill, Swift & Co., St. Louis, Mo.

Crerar, Adams & Co., Chicago, Ill.

Dwight, E. P., 407 Sansom St., Philadelphia, Pa.

Haines, Jones & Cadbury Co., Philadelphia, Pa.

Hibbard, Spencer, Bartlett & Co., Chicago, Ill.

Hunt Co., C. W., 45 Broadway, New York.

James & Co. (Inc.), Chattanooga, Tenn.

Linley Supply Co., Ezra H., St. Louis, Mo.

Louisville Car Wheel & Railway Supply Co., Louisville, Ky.

New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.

Ossawan Mills Co., Norwich, Conn.

Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.

Sherburne & Co., 53 Oliver St., Boston, Mass.

Silver Lake Co., Newtonville, Mass.

ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

505 COUPLINGS—Belt—

Billings & Spencer Co., Hartford, Conn.  
Case Manufacturing Co., Columbus, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Silver Lake Co., Newtonville, Mass.

506 COUPLINGS—Friction Clutch—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Link-Belt Machinery Co., Chicago, Ill.

507 COUPLINGS—Hose—

Boston Woven Hose & Rubber Co., Boston, Mass., Fred'k Swift  
& Co., Agents, Old Colony Bldg., Chicago, Ill.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Clark Co., W. J., Salem, Ohio.  
Clayton & Lambert Manufacturing Co., Ypsilanti, Mich.  
Crane Co., 10 Jefferson St., Chicago, Ill.  
Darling Pump & Manufacturing Co., Williamsport, Pa.  
Davis Co., The John, 51 Michigan St., Chicago, Ill.  
Eaton, Cole & Burnham Co., 253 Broadway, New York.  
Eureka Fire Hose Co., 13 Barclay St., New York.  
Goodrich Rubber Co., Akron, Ohio.  
Goodyear's India Rubber Glove Manufacturing Co., 503 Broadway, New York.  
Haydenville Manufacturing Co., 73 Beekman St., New York.  
King & Knight, 614 Atlantic Ave., Boston, Mass.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Novelty Iron Works, Sterling, Ill.  
Peck Bros. & Co., New Haven, Conn.  
Springfield Brass Co., Springfield, Ohio.  
Walworth Manufacturing Co., 16 Oliver St., Boston, Mass.

508 COUPLINGS—Round Belt—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Root, S. E., Bristol, Conn.  
Silver Lake Co., Newtonville, Mass.

509 COVERING—Asbestos—

Cincinnati Roofing Co., Cincinnati, Ohio.  
Franklin Manufacturing Co., Franklin, Pa.  
Johns Manufacturing Co., H. W., 100 William St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
New York Fire Proof Covering Co., 26 Cortlandt St., New York.  
Watson Co., H. F., Erie, Pa.

510 COVERING—Asbestos Boiler—

Franklin Manufacturing Co., Franklin, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

511 COVERING—Asbestos Pipe—

Carey Manufacturing Co., The Philip, 415 E. Pearl St., Cincinnati.  
Franklin Manufacturing Co., Franklin, Pa.  
Johns Manufacturing Co., H. W., 100 William St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Watson Co., H. F., Erie, Pa.

## 513 COVERING—Magnesia—

Keasby & Mattison Co., Ambler, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Magnesia Covering Co., Ambler, Pa.  
 New York Fire Proof Covering Co., 26 Cortlandt St., New York.

## 514 CRABS—

American Hoist and Derrick Co., St. Paul, Minn.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 515 CRANES—

American Hoist & Derrick Co., St. Paul, Minn.  
 Baird Machinery Co., U., 1123 Water St., Pittsburg, Pa.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Brown Hoisting & Conveying Machine Co., Cleveland, Ohio.  
 Bucyrus Co., The, S. Milwaukee, Wis.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Case Manufacturing Co., The, Columbus, Ohio.  
 Chisholm & Moore Manufacturing Co., Cleveland, Ohio.  
 Garry Iron & Steel Roofing Co., Cleveland, Ohio.  
 Industrial Works, Bay City, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pedrick & Ayer Co., 1001 Hamilton St., Philadelphia, Pa.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Sinclair-Scott Co., Baltimore, Md.  
 Shaw Electric Crane Co., Muskegon, Mich.  
 Watson-Stillman Co., 204 E. 43d St., New York.

## 516 CRANES—Bridge—

Brown Hoisting & Conveying Machine Co., Cleveland, Ohio.  
 Fraser & Chalmers (Inc.), 12th St. and Washtenaw Ave., Chicago.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Yale & Towne Manufacturing Co., Stamford, Conn.

## 517 CRANES—Car—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

## 518 CRANES—Derrick—

Brown Hoisting & Conveying Machine Co., Cleveland, Ohio.  
 Industrial Works, Bay City, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morgan Engineering Co., Alliance, Ohio.  
 Osgood Dredge Co., Albany, N. Y.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Yale & Towne Manufacturing Co., Stamford, Conn.

## A 518 CRANES—Electric—

Brill Co., J. G., Philadelphia, Pa.  
 Brown Hoisting & Conveying Machine Co., Cleveland, Ohio.  
 Case Manufacturing Co., Columbus, Ohio.  
 Commercial Electric Co., Indianapolis, Ind.  
 Dallett & Co., Thos. H., York St. and Sedgley Ave., Philadelphia.

**A518 CRANES—Electric—Continued.**

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Niles Tool Works Co., Hamilton, Ohio.  
Sellers & Co., Wm. (Inc.), 1600 Hamilton St., Philadelphia, Pa.  
Shaw Electric Crane Co., Muskegon, Mich.  
THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.

**519 CRANES—Hand—**

Addyston Pipe & Steel Co., Cincinnati, Ohio.  
Case Manufacturing Co., Columbus, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Pawling & Harnischfeger, Milwaukee, Wis.  
Reading Crane & Hoist Works, Reading, Pa.

**520 CRANES—Hydraulic—**

Addyston Pipe & Steel Co., Cincinnati, Ohio.  
Bement, Miles & Co., Philadelphia, Pa.  
Dickson Manufacturing Co., Scranton, Pa.  
Frank-Kneeland Machine Co., Pittsburg, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Southwark Foundry & Machine Co., Wash. Ave. and 5th St., Philadelphia, Pa.  
Tod & Co., William, Youngstown, Ohio.

**521 CRANES—Hydraulic Swing—**

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Ridgway & Son, Craig, Coatesville, Pa.

**522 CRANES—Jib—**

Brown Hoisting & Conveying Machine Co., Cleveland, Ohio.  
Case Manufacturing Co., Columbus, Ohio.  
Industrial Works, Bay City, Mich.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Morgan Engineering Co., Alliance, Ohio.  
Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

**523 CRANES—Locomotive—**

American Hoist & Derrick Co., St. Paul, Minn.  
Brown Hoisting & Conveying Machine Co., Cleveland, Ohio.  
Bucyrus Co., The, South Milwaukee, Wis.  
Case Manufacturing Co., Columbus, Ohio.  
Industrial Works, Bay City, Mich.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Morgan Engineering Co., Alliance, Ohio.

**524 CRANES—Pneumatic—**

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago, Ill. See ad. page B 2.  
Garry Iron & Steel Roofing Co., Cleveland, Ohio.  
Ingersoll-Sergeant Drill Co., Havemeyer Bldg., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Manning, Maxwell & Moore, 85 Liberty St., New York.  
Ridgway & Son, Craig, Coatesville, Pa.



## 525 CRANES—Portable—

Garry Iron &amp; Steel Roofing Co., Cleveland, Ohio.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 526 CRANES—Power—

Bement, Miles &amp; Co., Philadelphia, Pa.

Birmingham Iron Foundry, Derby, Conn.

Brown Hoisting &amp; Conveying Machine Co., Cleveland, Ohio.

Case Manufacturing Co., Columbus, Ohio.

Dickson Manufacturing Co., Scranton, Pa.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Osgood Dredge Co., Albany, N. Y.

Ridgway &amp; Son, Craig, Coatesville, Pa.

Sinclair-Scott Co., Baltimore, Md.

## 528 CRANES—Station—

Brown Hoisting &amp; Conveying Machine Co., Cleveland, Ohio.

Bucyrus Co., The, S. Milwaukee, Wis.

Industrial Works, Bay City, Mich.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 529 CRANES—Swing—

Brown Hoisting &amp; Conveying Machine Co., Cleveland, Ohio.

Farrel Foundry &amp; Machine Co., Havemeyer Bldg., New York.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Lincoln Iron Works, Rutland, Vt.

Sellers &amp; Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

Vulcan Iron Works, Wilkesbarre, Pa.

## 530 CRANES—Traveling—

Brown Hoisting &amp; Conveying Machine Co., Cleveland, Ohio.

Carlin's Sons, Thomas, Allegheny, Pa.

Case Manufacturing Co., Columbus, Ohio.

Farrel Foundry &amp; Machine Co., Havemeyer Bldg., New York.

Fort Scott Foundry &amp; Machine Co., Fort Scott, Kas.

Harrington, Son &amp; Co. (Inc.), Edwin, 430 N. 15th St., Philadelphia, Pa.

Industrial Works, Bay City, Mich.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Link-Belt Machinery Co., Chicago, Ill.

Morgan Engineering Co., Alliance, Ohio.

Niles Tool Works Co., Hamilton, Ohio.

Pawling &amp; Harnischfeger, Milwaukee, Wis.

Sellers &amp; Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

Toledo Foundry &amp; Machine Co., Toledo, Ohio.

Wood &amp; Co., R. D., 400 Chestnut St., Philadelphia, Pa.

## 531 CRANES—Traveling—Electric—

Brown Hoisting &amp; Conveying Machine Co., Cleveland, Ohio.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Lincoln Iron Works, Rutland, Vt.

Manning, Maxwell &amp; Moore, 85 Liberty St., New York.

Morgan Engineering Co., Alliance, Ohio.

Pawling &amp; Harnischfeger, Milwaukee, Wis.

Shaw Electric Crane Co., Muskegon, Mich.

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**532 CRANES—Wrecking—**

Brown Hoisting & Conveying Machine Co., Cleveland, Ohio.  
 Greenleaf Turn Table Co., Indianapolis, Ind.  
 Industrial Works, Bay City, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

**533 CRANKS—**

Dickson Manufacturing Co., Scranton, Pa.  
 Eccles, Richard, Auburn, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pittsburg Steel Castings Co., Pittsburg, Pa.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**535 CRANK SHAFTS—**

Chester Steel Castings Co., 407 Library St., Philadelphia, Pa.  
 Erie Forge Co., Erie, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pratt & Letchworth Co., Buffalo, N. Y.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**536 CRAYONS—**

Andrews Co., A. H., 304 Wabash Ave., Chicago, Ill.  
 Levison & Blythe Manufacturing Co., St. Louis, Mo.  
 Munger & Son, East River, Conn.  
 Olcott & Co., J. M., 84 Wabash Ave., Chicago, Ill.  
 Rickard & Hewitt, 104 John St., New York.

**537 CRAYONS—Colored—**

American Lead Pencil Co., 491 Broadway, New York.  
 Dixon Crucible Co., Joseph, Jersey City, N. J.  
 Eagle Pencil Co., 377 Broadway, New York.  
 Faber, Eberhardt, 545 Pearl St., New York.  
 Stewart Manufacturing Co., D. M., Chattanooga, Tenn.

**538 CRAYONS—Soap Stone—**

Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.

**539 CREOSOTE—**

Barrett Manufacturing Co., 290 Broadway, New York.  
 Mallinckrodt Chemical Works, St. Louis, Mo.

**540 CROSS ARMS—Telegraph—**

Butler & Co., George R., Sandusky, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Locke, Fred M., Victor, N. Y.  
 Loud & Sons Lumber Co., H. M., Oscoda, Mich.  
 Roper Lumber Co., John L., Norfolk, Va.  
 Sterling & Son, W. C., Monroe, Mich.

**541 CROSS HEADS—**

Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Chester Steel Castings Co., 407 Library St., Philadelphia, Pa.  
 Pratt & Letchworth Co., Buffalo, N. Y.

## 542 CROSSINGS—

Ajax Forge Co., 138 Jackson Boulevard, Chicago, Ill.  
 Allentown Rolling Mills, Allentown, Pa.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cleveland Frog & Crossing Co., Cleveland, Ohio.  
 Coughlin-Sanford Switch Co., St. Paul Bldg., New York.  
 Dickson Manufacturing Co., Scranton, Pa.  
 ELLIOT FROG & SWITCH CO., E. St. Louis, Ill. See ad.  
 page A 5.  
 Falk Co., Milwaukee, Wis.  
 Fulton Foundry Co., Cleveland, Ohio.  
 Hawkins Iron Works, R. F., Springfield, Mass.  
 INDIANAPOLIS SWITCH & FROG CO., THE, Springfield, Ohio.  
 Johnston Railroad Frog & Switch Co., Chester, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Loraine Steel Co., Loraine, Ohio.  
 MORDEN FROG & CROSSING WORKS, The Rookery, Chicago,  
 Ill. See ad. page A 5.  
 New York Switch & Crossing Co., Hoboken, N. J.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pettibone, Mulliken & Co., 725 Marquette Bldg., Chicago, Ill.  
 Pittsburg Steel Casting Co., Pittsburg, Pa.  
 Ramapo Iron Works, Hillburn, N. Y.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.  
 Union Switch & Signal Co., Swissvale, Pa.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Weir Frog Co., Cincinnati, Ohio.  
 Wharton & Co. (Inc.), Wm., Jr., 308 Walnut St., Philadelphia, Pa.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 543 CRUSHERS—Rock and Stone—

Allis Co., Edward P., Milwaukee, Wis.  
 Aultman Co., Canton, Ohio.  
 Austin Manufacturing Co., F. C., Harvey, Ill.  
 Bacon, Earle C., Havemeyer Bldg., New York.  
 Beckley & Co., A. J., Garwood, N. J.  
 Bradley Pulverizer Co., Boston, Mass.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Climax Road Machine Co., Marathon, N. Y.  
 Cresson Co., George V., Philadelphia, Pa.  
 Diamond Drill & Machine Co., Birdsboro, Pa.  
 Farrel Foundry & Machine Co., Havemeyer Bldg., New York.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Gates Iron Works, Chicago, Ill.  
 Hammond Manufacturing Co., 100 1st St., Portland, Ore.  
 Hoagland Son Co., M., Rockaway, N. J.  
 Indiana Road Machine Co., Fort Wayne, Ind.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 National Machinery Co., Tiffin, Ohio.  
 Parke & Lacy Co., San Francisco, Cal.  
 Phillips & McLaren, Pittsburg, Pa.  
 Poole & Son Co., Robert, Baltimore, Md.  
 Raymond Bros. Pulverizer Co., 1402 Monadnock Block, Chicago.  
 Western Wheeled Scraper Co., Aurora, Ill.

544 CUPS—Grease—

American Injector Co., Detroit, Mich.  
 Crane Co., 10 N. Jefferson St., Chicago, Ill.  
 Delaney Oil & Lubricant Co., Milwaukee, Wis.  
 Forest City Brass Works, Cleveland, Ohio.  
 Hammett, M. C., Troy, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lackawanna Lubricating Co., Scranton, Pa.  
 Lunkenheimer Co., Cincinnati, Ohio.  
 MICHIGAN LUBRICATOR CO., Detroit. See ad. page A 1.  
 Miller Co., Wm. P., 100 Greenpoint Ave., Brooklyn, N. Y.

545 CUPS—Oil—

Ashcroft Manufacturing Co., 85 Liberty St., New York.  
 Belknap Manufacturing Co., Bridgeport, Conn.  
 Bourbon Copper & Brass Works, Cincinnati, Ohio.  
 Cadman Manufacturing Co., A. W., Pittsburg, Pa.  
 Cahill, Swift & Co., 408 N. 4th St., St. Louis, Mo.  
 Crane Co., 10 N. Jefferson St., Chicago, Ill.  
 Crosby Steam Gage & Valve Co., Boston, Mass.  
 Detroit Lubricator Co., The, Detroit, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Leather & Brass Manufacturing Co., Seneca Falls, N. Y.  
 Lunkenheimer Co., The, Cincinnati, Ohio.  
 McNab & Harlan Manufacturing Co., Paterson, N. J.  
 MICHIGAN LUBRICATOR CO., Detroit. See ad. page A 1.  
 Nathan Manufacturing Co., 92 Liberty St., New York.  
 Peck Bros. & Co., New Haven, Conn.  
 Penberthy Injector Co., Detroit, Mich.  
 Star Brass Manufacturing Co., 53 Oliver St., Boston, Mass.

546 CUPS—Oil—Glass—

Detroit Lubricator Co., Detroit, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lunkenheimer Co., The, Cincinnati, Ohio.  
 MICHIGAN LUBRICATOR CO., Detroit. See ad. page A 1.

A 546 CUPOLA BLOCKS—

GARDEN CITY SAND CO., Security Bldg., Chicago, Ill. See ad. page A 2.

547 CURTAINS—Car—

Brill Co., J. G., Philadelphia, Pa.  
 Dayton Manufacturing Co., Dayton, Ohio.  
 McKay Curtain Co., Wilmington, Del.  
 Pantasote Co., The, New York.

548 CUSHIONS—Caboose—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Scarritt, Comstock & Co., St. Louis, Mo.

## 549 CUSPIDORS—Aluminum—

Bay State Aluminum Co., Boston, Mass.  
Griswold Manufacturing Co., Erie, Pa.  
Hess & Hinderman, St. Louis, Mo.  
Patton Manufacturing Co., Columbus, Ohio.  
Shepard & Co., Sidney, Buffalo, N. Y.  
Wagner Manufacturing Co., Sidney, Ohio.

## 550 CUSPIDORS—Brass—

Aldrich & Ray Manufacturing Co., Buffalo, N. Y.  
Bridgeport Brass Co., Bridgeport, Conn.  
Fiske, J. W., 39 Park Place, New York.  
Ledig Co., 248 N. 8th St. Philadelphia, Pa.  
Pittsburg Brass Co., Pittsburg, Pa.

## 551 CUSPIDORS—Nickeled—

Ledig Co., 248 N. 8th St., Philadelphia, Pa.  
Manning, Bowman & Co., Meriden, Conn.  
Stoutenborough, X., 277 Pearl St., New York.

## 552 CUSPIDORS—Rubber—

American Hard Rubber Co., 9 Mercer St., New York.  
Goodyear Rubber Co., 787 Broadway, New York.

## 553 CUT-OUTS AND PLUGS—Electric—

Anchor Electric Co., 71 Federal St., Boston, Mass.  
Bernard Co., E. G., Troy, N. Y.  
Bryant Electric Co., Bridgeport, Conn.  
Bunnell & Co., J. H., 76 Cortlandt St., New York.  
Partrick, Carter & Wilkins, 125 S. 2d St., Philadelphia, Pa.  
Peru Electric Manufacturing Co., Peru, Ind.  
Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

## 554 CUTTERS—Fence Wire—

Billings & Spencer Co., Hartford, Conn.  
Cronk Hanger Co., Elmira, N. Y.  
King & Co., J. M., Waterford, N. Y.  
Porter, H. K., 66 Beverly St., Boston, Mass.  
Shuster Co., F. B., New Haven, Conn.  
West Manufacturing Co., Buffalo, N. Y.

## 556 CUTTERS—Pipe—

Armstrong Manufacturing Co., Bridgeport, Conn.  
Ashcroft Manufacturing Co., 85 Liberty St., New York.  
Fairbanks, Morse & Co., Chicago, Ill.  
Hollands Manufacturing Co., Erie, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Saunders Sons, D., Yonkers, N. Y.

## A 556 CYLINDERS—Air and Gas—

SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

## 557 CYLINDERS—Engine—

Vulcan Iron Works, Wilkesbarre, Pa.  
Wheeler Foundry Co., Worcester, Mass.

**558 CYLINDERS—Locomotive—**

Adonis & Price Locomotive Machine Works, Nashville, Tenn.  
 Baldwin Locomotive Works, 500 N. Broad St., Philadelphia, Pa.  
 Brooks Locomotive Works, Dunkirk, N. Y.  
 Cooke Locomotive & Machine Co., Paterson, N. J.  
 Dickson Manufacturing Co., Scranton, Pa.  
 International Power Co., Providence, R. I.  
 Lima Locomotive & Machine Co., Lima, Ohio.  
 Manchester Locomotive Works, Manchester, N. H.  
 Mason Machine Works, Taunton, Mass.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 Pittsburg Locomotive & Car Works, Pittsburg, Pa.  
 Porter & Co., H. K., Pittsburg, Pa.  
 Portland Co., Portland, Me.  
 Rhode Island Locomotive Works, Providence, R. I.  
 Richmond Locomotive & Machine Works, Richmond, Va.  
 Risdon Iron & Locomotive Works, San Francisco, Cal.  
 Rogers Locomotive Co., Paterson, N. J.  
 Schenectady Locomotive Works, Schenectady, N. Y.  
 Taunton Locomotive Manufacturing Co., Taunton, Mass.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**559 DERRICKS—Coal—**

Brown Hoisting & Conveying Machine Co., Cleveland, Ohio.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Excelsior Iron Works Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lambert Hoisting Engine Co., Newark, N. J.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**560 DERRICKS—Construction—**

Brennan & Co., Louisville, Ky.  
 Brown Hoisting & Conveying Machine Co., Cleveland, Ohio.  
 Cralin's Sons, Thomas, Allegheny, Pa.  
 Carpenter & Co., Geo. B., 208 S. Water St., Chicago, Ill.  
 Case Threshing Machine Co., J. I., Racine, Wis.  
 Contractors' Plant Manufacturing Co., Buffalo, N. Y.  
 Dickson, Manufacturing Co., Scranton, Pa.  
 Industrial Works, Bay City, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lombard Iron Works & Supply Co., Augusta, Ga.  
 McMyler Manufacturing Co., Cleveland, Ohio.  
 Osgood Dredge Co., Albany, N. Y.

**561 DERRICKS—Mining and Quarry—**

Dickson Manufacturing Co., Scranton, Pa.  
 Fort Scott Foundry & Machine Co., Fort Scott, Kas.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lambert Hoisting Engine Co., Newark, N. J.  
 Lidgerwood Manufacturing Co., 96 Liberty St., New York.

**562 DERRICKS—Pile Driving—**

Brown Hoisting & Conveying Machine Co., Cleveland, Ohio.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 562 DERRICKS—Pile Driving—Continued.

Lambert Hoisting Engine Co., Newark, N. J.  
Lidgerwood Manufacturing Co., 96 Liberty St., New York.  
Osgood Dredge Co., Albany, N. Y.  
Toledo Foundry & Machine Co., Toledo, Ohio.  
Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.

## 563 DERRICKS—Revolving Steam—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
McMyler Manufacturing Co., Cleveland, Ohio.  
Sulzer Machine Co., Louisville, Ky.  
Vogt Machine Co., Henry, Louisville, Ky.  
Webster, Camp & Lane Machine Co., Akron, Ohio.

## 564 DERRICKS—Steel—

American Hoist & Derrick Co., St. Paul, Minn.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

## 565 DERRICKS—Wrecking—

Brooks Locomotive Works, Dunkirk, N. Y.  
Brown Hoisting & Conveying Machine Co., Cleveland, Ohio.  
Excelsior Iron Works Co., Cleveland, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Osgood Dredge Co., Albany, N. Y.

## 566 DERRICK FITTINGS—

American Hoist & Derrick Co., St. Paul, Minn.  
Brown Hoisting & Conveying Machine Co., Cleveland, Ohio.  
Hayward Co., The, 97 Cedar St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.

## 567 DESKS—Office—

American Desk Co., 18 E. Van Buren St., Chicago, Ill.  
Buffalo School Furniture Co., Buffalo, N. Y.  
Burlington School Furniture Co., Burlington, Iowa.  
Clark & Co., Thomas, 231 Levant St., Philadelphia, Pa.  
Cutler & Son, A., Buffalo, N. Y.  
Derby Desk Co., 138 Portland St., Boston, Mass.  
Globe Co., 1223 W. 8th St., Cincinnati, Ohio.  
Hammer Bros., Newark, N. J.  
Kelsall Co., T., McLean Ave. and Richmond St., Cincinnati, Ohio.  
Lauter, H., Indianapolis, Ind.  
Paris Manufacturing Co., S. Paris, Me.  
Scarritt Comstock & Co., St. Louis, Mo.  
Sidney School Furniture Co., Sidney, Ohio.  
Stafford & Bros., Steinway Hall, Chicago, Ill.  
U. S. Desk & Office Fitting Co., Wabash Ave., Chicago, Ill.  
Valley City Desk Co., Grand Rapids, Mich.  
Winkler Furniture Co., Lexington, Mo.

568 DESKS—Standing—

American Desk Co., 18 E. Van Buren St., Chicago, Ill.  
Dornette & Bro., J., 1250 Harrison Ave., Cincinnati, Ohio.  
Hemmer Bros., Newark, N. J.  
Minneapolis Office & School Furniture Co., Minneapolis, Minn.  
Rand & Leopold Desk Co., Burlington, Iowa.  
Scarritt Comstock & Co., St. Louis, Mo.

569 DESKS—Typewriter—

Petersen & Co., A., 15 Armour St., Chicago, Ill.  
Scarritt Comstock & Co., St. Louis, Mo.

570 DETECTORS AND ALARMS—High and Low Water—

Ashcroft Manufacturing Co., 85 Liberty St., New York.  
Crosby Steam Gage & Valve Co., Oliver St., Boston, Mass.  
Detroit Lubricator Co., Detroit, Mich.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
MICHIGAN LUBRICATOR CO., Detroit. See ad. page A 1.  
Vanduzen Co., E. W., Cincinnati, Ohio.

571 DIAPHRAGMS—Car Vestibule—

Boston Belting Co., Boston, Mass.

572 DIAPHRAGMS—Vacuum Brake—

Boston Belting Co., Boston, Mass.  
New York Belting and Packing Co., New York.

573 DIES—

Armstrong Manufacturing Co., Bridgeport, Conn.  
Billings & Spencer Co., Hartford, Conn.  
Bliss Co., E. W., Plymouth St., Brooklyn, N. Y.  
Brown, F. S. and G. L., Baltimore, Md.  
Buecher Manufacturing Co., Elkhart, Ind.  
Card Manufacturing Co., S. W., Mansfield, Mass.  
Chicago Model Works, 181 E. Madison St., Chicago, Ill.  
Cincinnati Screw and Tap Co., The, Cincinnati, Ohio.  
Denver Novelty Works and Manufacturing Co., Denver, Col.  
Ferracute Machine Co., Bridgeton, N. J.  
Hoggson & Pettis Manufacturing Co., New Haven, Conn.  
Howard Foundry and Machine Works, Philadelphia, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Niagara Machine and Tool Works, Buffalo, N. Y.  
Pittsburg Steel Casting Co., Pittsburg, Pa.  
Pratt & Whitney Co., Hartford, Conn.  
Toledo Machine and Tool Co., Toledo, Ohio.

A573 DIPPERS—Steam Shovel and Dredge—

VULCAN IRON WORKS, 59 Milwaukee Ave., Chicago, Ill.

574 DISINFECTANTS—

Burch & Co., F. S., 178 Michigan St., Chicago, Ill.  
Childs, W. H. H., 73 Maiden Lane, New York.  
Delaney Oil and Lubricant Co., Milwaukee, Wis.  
Egyptian Chemical Co., 15 Foster's Wharf, Boston, Mass.  
Midland Chemical Co., Cleveland, Ohio.  
Parke, Davis & Co., Detroit, Mich.  
Platt, Henry B., 36 Platt St., New York.  
Summerville Fernoline Works, Summerville, S. C.



575 DISINFECTANTS—Creosote—

Walker Chemical Works, Harrison, N. J.

576 DITCHES AND EXCAVATORS—

Austin Manufacturing Co., F. C., Harvey, Ill.  
 Benicia Agricultural Works, Benicia, Cal.  
 Bucyrus Co., The, S. Milwaukee, Wis.  
 Contractors' Plant Manufacturing Co., Buffalo, N. Y.  
 Hayward Co., 97 Cedar St., New York.  
 Kingsford Foundry and Machine Works, Oswego, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Marion Steam Shovel Co., Marion, Ohio.  
 Osgood Dredge Co., Albany, N. Y.  
 Souther & Co., John, 12 Postoffice Square, Boston, Mass.  
 Toledo Foundry and Machine Co., Toledo, Ohio.  
 Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.  
 Vulcan Iron Works Co., Toledo, Ohio.  
 Western Wheeled Scraper Co., Aurora, Ill.

577 DIVIDERS—

Bemis & Call Hardware and Tool Co., Springfield, Mass.  
 Kraeuter Co., Newark, N. J.  
 Tower & Lyon, 95 Chambers St., New York.

578 DIVING APPARATUS—

Chapman Derrick and Wrecking Co., 27 William St., New York.  
 Goodyear Rubber Co., 787 Broadway, New York.  
 Goodyear's India Rubber Glove Mfg. Co., 503 Broadway, N. Y.  
 Morse & Son, A. J., 140 Congress St., Boston, Mass.

579 DOORS—Ash Pit—

Bolles Iron and Wire Works, J. E., Detroit, Mich.  
 Braumoeller & Son, Henry, 92 W. Van Buren St., Chicago, Ill.  
 Horne & Danz Co., St. Paul, Minn.  
 Phoenix Iron Co., Trenton, N. J.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Wheeler Foundry Co., Worcester, Mass.

580 DOORS—Boiler—

Midvale Foundry Co. (Ltd.), Allentown, Pa.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Vulcan Iron Works, Wilkesbarre, Pa.

581 DOORS—Car—

Jones Car Door Co., 234 LaSalle St., Chicago, Ill.  
 McGuire Manufacturing Co., 122 N. Sangamon St., Chicago, Ill.  
 Missouri Railway Equipment Co., Union Trust Bldg., St. Louis.  
 National Railway Specialty Co., Old Colony Bldg., Chicago, Ill.  
 Wagner Car Door Co., Lewis Block, Indianapolis, Ind.

582 DOORS—Corrugated Iron and Steel—

Cincinnati Corrugating Co., Piqua, Ohio.

**583 DOORS—Furnace—**

Haven Co., James L., 56 Plum St., Cincinnati, Ohio.  
 Phoenix Iron Co., Trenton, N. J.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.

**584 DOORS—Grain—**

Belle City Malleable Iron Co., Racine, Wis.  
 Chicago Grain Door Co., Monadnock Block, Chicago, Ill.  
 Defiance Box Co., The, Defiance, Ohio.  
 Griffen Lumber Co., George M., St. Louis, Mo.  
 McGuire Manufacturing Co., 122 N. Sangamon St., Chicago, Ill.  
 Sheffield Car Co., Three Rivers, Mich.

**585 DOORS—Hopper Bottom—Car—**

McCORD & CO., Old Colony Bldg., Chicago, Ill.

**A585 DOORS—Horizontal Folding—**

Variety Mfg. Co., 54 North Clinton St., Chicago, Ill.

**586 DOORS—Iron—**

Berlin Iron Bridge Co., East Berlin, Conn.  
 Bolles Iron and Wire Works, J. E., Detroit, Mich.  
 Bolter & Sons, A., 84 LaSalle St., Chicago, Ill.  
 Braumoeller & Son, Henry, 92 W. Van Buren St., Chicago, Ill.  
 Champion Iron Co., Kenton, Ohio.  
 Cincinnati Corrugating Co., Piqua, Ohio.  
 Cornell, J. B. & J. M., 26th St. and 11th Ave., New York.  
 Dimond, Thomas, 128 W. 33d St., New York.  
 Hecla Iron Works, N. 11th and Berry Sts., Brooklyn, New York.  
 Ludlow-Saylor Wire Co., 116 S. 4th St., St. Louis, Mo.  
 Michigan Wire and Iron Works, Detroit, Mich.  
 Smith & Co., H. B., Westfield, Mass.  
 Van Dorn Iron Works Co., Cleveland, Ohio.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**587 DOORS—Steel Rolling and Swinging—**

Kinnear Manufacturing Co., Columbus, Ohio.

**588 DRAFT PLANTS—Mechanical—**

Buffalo Forge Co., Buffalo, N. Y.

**589 DRAFT RIGGING—**

Buckeye Malleable Iron and Coupler Co., Columbus, Ohio.  
 Buhl Malleable Co., Detroit, Mich.  
 Dayton Malleable Iron Co., Dayton, Ohio.  
 Gould Coupler Co., New York.  
 Missouri Railway Equipment Co., St. Louis, Mo.  
 Railroad Supply Co., The, Chicago, Ill.  
 Washburn Coupler Co., Minneapolis, Minn.  
 Western Railway Equipment Co., St. Louis, Mo.

**590 DRAWBARS—**

Bemis Car Box Co., Springfield, Mass.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Edge Moor Iron Co., Wilmington, Del.  
 Loraine Steel Co., Loraine, Ohio.  
 Louisville Steam Forge Co., Louisville, Ky.  
 Pittsburg Forge and Iron Co., Pittsburg, Pa.  
 Pratt & Letchworth Co., Buffalo, N. Y.  
 Taylor Iron and Steel Co., High Bridge, N. J.

**591 DRAWBAR ATTACHMENTS—**

Butler Drawbar Attachment Co., The, Cleveland, Ohio.

**592 DRAWBAR ATTACHMENTS—Malleable—**

Dayton Malleable Iron Co., Dayton, Ohio.

**593 DREDGES—**

Atlantic, Gulf and Pacific Co., Park Row Bldg., New York.  
 Bucyrus Co., The, S. Milwaukee, Wis.  
 Hayward Co., 97 Cedar St., New York.  
 Industrial Works, Bay City, Mich.  
 Marion Steam Shovel Co., Marion, Ohio.  
 Montgomery Machine Co., J. H., Denver, Co.  
 Osgood Dredge Co., Albany, New York.  
 Portland Co., Portland, Me.  
 Sheriffs Manufacturing Co., Milwaukee, Wis.  
 Smith & Sons Co., T., Jersey City, N. J.  
 Toledo Foundry and Machine Co., The, Toledo, Ohio.  
 Vulcan Iron Works, Chicago, Ill.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Vulcan Iron Works Co., Toledo, Ohio.

**A593 DREDGES—Elevator Bucket—**

Vulcan Iron Works Co., Toledo, Ohio.

**594 DRESSERS—Emery Wheel—**

Abrasive Material Co., Philadelphia, Pa.  
 Best, L. 54 Vesey St., New York.  
 Chicago Screw Co., 96 W. Washington St., Chicago, Ill.  
 Hayden & Co., J. M., Grand Rapids, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Norton Emery Wheel Co., Worcester, Mass.  
 Standard Emery Wheel Co., Albany, N. Y.  
 Standard Tool Co., Cleveland, Ohio.

**595 DRESSING—Belt—**

Atkinson & Pierce Manufacturing Co., Cincinnati, Ohio.  
 Bradford Belting Co., Cincinnati, Ohio.  
 Cling-Surface Manufacturing Co., Buffalo, N. Y.  
 Delaney Oil and Lubricant Co., Milwaukee, Wis.  
 Dixon Crucible Co., Joseph, Jersey City, N. J.  
 Jewell Belting Co., Hartford Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Munson Belting Co., Charles, 36 S. Canal St., Chicago, Ill.

**595 DRESSING—Belt—Continued.**

Page Belting Co., Concord, N. H.  
 Providence Oil Works, Providence, R. I.  
 Shultz Belting Co., St. Louis, Mo.  
 Stephenson Manufacturing Co., Albany, N. Y.

**597 DRILLS—Bench—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Barnes Co., W. F. and John, Rockford, Ill.  
 Dwight Slate Machine Co., Hartford, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Oliver, W. W., Buffalo, N. Y.  
 Pratt & Whitney Co., The, Hartford, Conn.  
 Stearns & Co., E. C., Syracuse, N. Y.

**598 DRILLS—Bit Brace—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Cincinnati Tool Co., Pearl and Ludlow Sts., Cincinnati, Ohio.  
 Cleveland Twist Drill Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 Standard Tool Co., Cleveland, Ohio.  
 Syracuse Twist Drill Co., Syracuse, N. Y.

**599 DRILLS—Blacksmith's—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Cleveland Twist Drill Co., Cleveland, Ohio.  
 Foos Manufacturing Co., Springfield, Ohio.  
 Illinois Iron and Bolt, Co., Carpentersville, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Standard Tool Co., Cleveland, Ohio.

**600 DRILLS—Boiler Shell—**

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Silver Manufacturing Co., Salem, Ohio.

**601 DRILLS—Breast—**

Baird Machinery Co., U., Pittsburg, Pa.  
 CHICAGO PNEUMATIC TOOL CO., Chicago. See ad. page B 2.  
 Fray & Co., John S., Bridgeport, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Miller's Falls Co., Miller's Falls, Mass.  
 West Manufacturing Co., Buffalo, N. Y.

**602 DRILLS—Cotter—**

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

**603 DRILLS—Flat—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Billings & Spencer Co., Hartford, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.

**604 DRILLS FOR RATCHETS—**

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 Standard Tool Co., Cleveland, Ohio.

**605 DRILLS—Friction—Sensitive—**

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Knecht Bros. Co., The, 2442 Beekman St., Cincinnati, Ohio.

**606 DRILLS—Hand—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Champion Blower and Forge Co., Lancaster, Pa.  
 Foos Manufacturing Co., Springfield, Ohio.  
 Fray & Co., John S., Bridgeport, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Tower & Lyon, 95 Chambers St., New York.

**607 DRILLS—Increase Twist—**

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morse Twist Drill & Machine Co., New Bedford, Mass.  
 Putnam Machine Co., Fitchburg, Mass.  
 Standard Tool Co., Cleveland, Ohio.

**608 DRILLS—Oil Tube—**

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 Standard Tool Co., The, Cleveland, Ohio.

**609 DRILLS—Pneumatic—**

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago, Ill. See ad. page B 2.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Manning, Maxwell & Moore, 85 Liberty St., New York.  
 Philadelphia Pneumatic Tool Co., Philadelphia, Pa.  
 Q. & C. Co., Chicago, Ill.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
 Standard Pneumatic Tool Co., Marquette Bldg., Chicago, Ill.  
 Standard Railway Equipment Co., 706 Great Northern Bldg., Chicago, Ill.

**610 DRILLS—Portable—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Dallett & Co., Thomas H., York c. Sedgley St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Stow Manufacturing Co., Binghamton, N. Y.

**611 DRILLS—Prospecting Core—**

Baird Machinery Co., U., Pittsburg, Pa.  
 American Diamond Rock Drill Co., 120 Liberty St., New York.  
 Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sullivan Machinery Co., Claremont, N. H.

**612 DRILLS—Radial—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Barnes Co., W. F. & John, Rockford, Ill.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Bickford Drill and Tool Co., Cincinnati, Ohio.  
 Cleveland Punch and Shear Works Co., The, Cleveland, Ohio.  
 Detrick & Harvey Machine Co., Baltimore, Md.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 Hamilton Machine Tool Co., Hamilton, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Lodge & Shipley Machine Tool Co., Cincinnati, Ohio.  
 Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

**613 DRILLS—Rall—Shop Tool—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Industrial Works, Bay City, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

**614 DRILLS—Ratchet—**

Anderson & Sons, Wm. H., Detroit, Mich.  
 Ashcroft Manufacturing Co., 85 Liberty St., New York.  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Billings & Spencer Co., Hartford, Conn.  
 Curtis & Curtis, Bridgeport, Conn.  
 Johnson, William, Newark, N. J.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 New Process Twist Drill Co., Taunton, Mass.  
 Peck, Stow & Wilcox Co., Southington, Conn.  
 Pratt & Whitney Co., The, Hartford, Conn.  
 Waterbury Tool Co., Waterbury, Conn.

**615 DRILLS—Rock—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.  
 Diamond Drill and Machine Co., Birdsboro, Pa.  
 Ingersoll-Sergeant Drill Co., The, 26 Cortlandt St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Parke & Lacey Co., San Francisco, Cal.  
 Phillips Rock Drill Co., Filbert and 7th Sts., Philadelphia, Pa.  
 Rand Drill Co., 128 Broadway, New York.  
 Sullivan Machinery Co., Claremont, N. H.

## 616 DRILLS—Rock—Hand—

Baird Machinery Co., U., Pittsburg, Pa.  
 Beaver Falls Manufacturing and Fuel Co., Beaver Falls, Pa.  
 Howell's Mining Drill Co., Plymouth, Pa.  
 Jackson Drill and Manufacturing Co., 120 Liberty St., New York.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.

## 617 DRILLS—Shank—

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 Standard Tool Co., Cleveland, Ohio.

## 618 DRILLS—Shank—Taper—

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.

## 619 DRILLS—Special—

Baird Machinery Co., U., Pittsburg, Pa.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 620 DRILLS—Steam—

Baird Machinery Co., U., Pittsburg, Pa.  
 Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.  
 Diamond Drill and Machine Co., Birdsboro, Pa.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Doble Co., Abner, San Francisco, Cal.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Rand Drill Co., 128 Broadway, New York.

## 621 DRILLS—Suspension—

Baird Machinery Co., U., Pittsburg, Pa.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Cleveland Punch and Shear Works Co., The, Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

## 622 DRILLS—Tap—

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 Putnam Machine Co., Fitchburg, Mass.  
 Standard Tool Co., Cleveland, Ohio.

## 623 DRILLS—Track—

Baird Machinery Co., U., 1123 Water St., Pittsburg, Pa.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Buda Foundry and Manufacturing Co., Harvey, Ill.  
 Burnham Co., George, Harvey, Ill.  
 Crerar, Adams & Co., Chicago, Ill.

**623 DRILLS—Track—Continued.**

Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Jones & Sons Co., E. D., Pittsfield, Mass.  
 KINSEY CO., THE E. A., Cincinnati, O. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pettibone, Mulliken & Co. (Inc.), Marquette Bldg., Chicago, Ill.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Q. & C. Co., Chicago, Ill.  
 Roberts Car and Wheel Co., The, Three Rivers, Mich.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Stow Manufacturing Co., Binghamton, N. Y.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**624 DRILLS—Twist—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Cleveland Twist Drill Co., Cleveland, Ohio.  
 Kearney & Foot Co., 102 Reade St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 Standard Tool Co., Cleveland, Ohio  
 Whitman & Barnes Manufacturing Co., Akron, Ohio.

**625 DRILL PRESSES—**

Buffalo Forge Co., Buffalo, N. Y.  
 Illinois Iron and Bolt Co., Carpentersville, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Knecht Bros. Co., The, Cincinnati, Ohio.  
 Pratt & Whitney Co., Hartford, Conn.  
 Silver Manufacturing Co., Salem, Ohio.

**626 DRILL SOCKETS—**

Cleveland Twist Drill Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 Standard Tool Co., Cleveland, Ohio.

**627 DRUMS—Hoisting—**

Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Fort Scott Foundry and Machine Co., Fort Scott, Kas.  
 Hersey Manufacturing Co., S. Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lidgerwood Manufacturing Co., 96 Liberty St., New York.  
 Ottumwa Iron Works, Ottumwa, Ia.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**628 DRUMS—Mud—**

Dickson Manufacturing Co., Scranton, Pa.  
 Sharon Boiler Works, Sharon, Pa.



## A628 DRUMS—Oil—

SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

## 629 DRUMS—Rope Driving—

Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.  
 Fairmount Machine Co., 2106 Wood St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.  
 Poole & Son Co., Robert, Baltimore, Md.  
 Stillwell-Bierce & Smith-Valle Co., Dayton, Ohio.  
 Vulcan Iron Works, Wilkesbarre, Pa.

## 630 DUPLICATORS—Letters—

Thomson Co., W. A., Betz Bldg., Philadelphia, Pa.

## 631 DUSTERS—

Adams & Co., J. J., 128 Greenpoint Ave., Brooklyn, N. Y.  
 Bradley & Smith, 251 Pearl St., New York.  
 Devoe & Reynolds Co., New York and Chicago.  
 Grand Rapids Brush Co., Grand Rapids, Mich.  
 Hanlon & Goodman, 57 Fulton St., New York.  
 WOLFE, WALKER & CO. (Ltd.), 511 Wood St., Pittsburg, Pa.  
 See ad. page A 3.

## 632 DUSTERS—Feather—

Cincinnati Manufacturing Co., 519 Walnut St., Cincinnati, Ohio.  
 Dearborn Duster Co., 330 Dearborn St., Chicago, Ill.  
 Hayes Duster Co., 51 Vesey St., New York.  
 Lee Broom and Duster Co., Davenport, Ia.  
 WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.

## 633 DUST GUARDS—

American Dust Guard Co., Columbus, Ohio.  
 HARRISON DUST GUARD CO., THE, Toledo. See ad. page A 6.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 National Railway Specialty Co., Old Colony Bldg., Chicago, Ill.  
 Reuter & Mallory, Baltimore, Md.  
 Vulcanized Fibre Co., Wilmington, Del.

## 634 DUST GUARDS—For Train Pipe Couplings—

Simpson & Collier, Old Colony Bldg., Chicago, Ill.

## 635 DUSTLESS ROAD BED PROCESS—

Q. & C. Co., Chicago, Ill.

## 636 DYNAMITE—

Aetna Powder Co., 1410 Security Bldg., Chicago, Ill.  
 California Powder Works, San Francisco, Cal.  
 Climax Powder Manufacturing Co., Emporium, Pa.  
 Fairfield Chemical Works (Inc.), 71 Wall St., New York.  
 Great Western Powder Co., Toledo, Ohio.  
 Hecla Powder Co., 96 Liberty St., New York.  
 Independent Powder Co., Terre Haute, Ind.  
 Lafin & Rand Powder Co., 20 Murray St., New York.  
 U. S. Dynamite and Chemical Co., 38 Platt St., New York.

**637 DYNAMITE—Gelatine—**

Kirk & Son, Arthur, Pittsburg, Pa.

**638 DYNAMITE—Nitro-Glycerine—**

Enterprise High Explosive Co., Tamaqua, Pa.

**639 EJECTORS—**

Hayden & Derby Manufacturing Co., The, 85 Liberty St., N. Y.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**640 ELECTRICAL SUPPLIES—**

American Signal Co., Gullford and Girard Ave., Baltimore, Md.  
Eureka Tempered Copper Co., North East, Pa.  
Fort Wayne Electric Corporation, Ft. Wayne, Ind.  
Gleason Manufacturing Co., E. P., New York.  
Hemacite Manufacturing Co., Trenton, N. J.  
Laclede Carbon and Electric Co., Kokomo, Ind.  
Partrick, Carter & Wilkins, 125 S. 2d St., Philadelphia, Pa.  
Shaw & Co., J. Elliott, 632 Arch St., Philadelphia, Pa.  
Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

**641 ELECTRIC LIGHT SUPPLIES—**

Bunnell & Co., J. H., 76 Cortlandt St., New York.  
General Electric Co., Schenectady, N. Y.  
Partrick, Carter & Wilkins, 125 S. 2d St., Philadelphia, Pa.  
Triumph Electric Co., Cincinnati, Ohio.  
Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

**642 ELECTRIC RAILWAY APPARATUS—**

General Electric Co., Schenectady, N. Y.  
Hays Construction Co., Troy, Ohio.  
Westinghouse Electric and Manufacturing Co., Pittsburg, Pa.

**643 ELECTRIC SWITCHES—**

Anchor Electric Co., 71 Federal St., Boston, Mass.  
Bernard Co., E. G., Troy, N. Y.  
Bryant Electric Co., Bridgeport, Conn.  
Bunnell Co., J. H., 76 Cortlandt St., New York.  
Electric Protection Co., 1026 Filbert St., Philadelphia, Pa.  
Hart & Gibbs Manufacturing Co., Hartford, Conn.  
Jones & Son, J., 64 Cortlandt St., New York.  
Keystone Electric Co., Erie, Pa.  
Partrick, Carter & Wilkins, 125 S. 2d St., Philadelphia, Pa.  
Richmond Electrical Works, 704 E. Main St., Richmond, Va.  
Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

**644 ELEVATORS—COAL—**

Dickson Manufacturing Co., Scranton, Pa.  
Hunt Co., C. W., 45 Broadway, New York.  
Kenney & Co., Scottdale, Pa.  
Link-Belt Machinery Co., Chicago, Ill.  
Prox & Brinkman Manufacturing Co., Terre Haute, Ind.  
Stuebner, G. L., Long Island City, N. Y.  
Vulcan Iron Works, Wilkesbarre, Pa.

**645 ELEVATORS—Freight—**

Bartlett, Hayward & Co., Baltimore, Md.  
 Belknap Motor Co., Portland, Me.  
 Chase-Turbine Manufacturing Co., Orange, Mass.  
 Crane Elevator Co., 219 S. Jefferson St., Chicago, Ill.  
 Haven Co., James L., 56 Plum St., Cincinnati, Ohio.  
 Howard Iron Works, Buffalo, N. Y.  
 Industrial Works, Bay City, Mich.  
 Jeffrey Manufacturing Co., Columbus, Ohio.  
 Lane & Bodley Co., John and Water Sts., Cincinnati, Ohio.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Miller, L. J., 1233 Harrison Ave., Cincinnati, Ohio.  
 Morse, Williams Co., Philadelphia, Pa.  
 Norwood Engineering Co., Florence, Mass.  
 PARKHURST BROS. & CO., Indianapolis, Ind.  
 Reedy Elevator Manufacturing Co., J. W., 91 Illinois St., Chicago.  
 Sulzer Machine Co., Louisville, Ky.  
 Vogt Machine Co., Henry, Louisville, Ky.

**646 ELEVATORS—Ice—**

Gifford Bros., Hudson, N. Y.  
 Knickerbocker Ice Co., 6th and Arch Sts., Philadelphia, Pa.  
 Link-Belt Machinery Co., Chicago, Ill.

**647 ELEVATORS—Passenger—**

Allfree Manufacturing Co., J. B., Indianapolis, Ind.  
 Bartlett, Hayward & Co., Baltimore, Md.  
 Crane Elevator Co., 219 S. Jefferson St., Chicago, Ill.  
 Howard Iron Works, Buffalo, N. Y.  
 Kieckhefer Elevator Co., A., Milwaukee, Wis.  
 Morse, Williams Co., Philadelphia, Pa.  
 Reedy Elevator Manufacturing Co., J. W., 91 Ills. St., Chicago.  
 San Francisco Tool Works, 11 Stevenson St., San Francisco, Cal.  
 Warner Elevator Manufacturing Co., Spring Grove Ave., Cincinnati, Ohio.

**648 ELEVATORS—Rock—**

Gates Iron Works, Chicago, Ill.  
 Link-Belt Machinery Co., Chicago, Ill.

**649 ELEVATORS—Sidewalk—**

Cornell, J. B. & J. M., 26th St. and 11th Ave., New York.  
 Crane Elevator Co., 219 S. Jefferson St., Chicago, Ill.  
 Graves Elevator Co., Rochester, N. Y.  
 Jackson Architectural Iron Works, 315 E. 28th St., New York.  
 Kieckhefer Elevator Co., A., Milwaukee, Wis.  
 Reedy Elevator Manufacturing Co., J. W., 91 Ills. St., Chicago.

**650 EMERY—**

Abrasive Material Co., Philadelphia, Pa.  
 Hampden Corundum Wheel Co., Brightwood, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Northampton Emery Wheel Co., 20 S. Canal St., Chicago, Ill.  
 Springfield Manufacturing Co., Bridgeport, Conn.  
 Standard Flint Paper Co., Arlington, N. J.

**651 ENGINES—Automatic Cut-off Steam—**

Allfree Manufacturing Co., J. B., Indianapolis, Ind.  
Armington & Sims Co., Providence, R. I.  
Atlas Engine Works, Indianapolis, Ind.  
Buckeye Engine Co., Salem, Ohio.  
Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.  
CHANDLER & TAYLOR CO., Indianapolis, Ind.  
Davenport Foundry and Machine Co., Davenport, Ia.  
Dickson Manufacturing Co., Scranton, Pa.  
Fairbanks, Morse & Co., Chicago, Ill.  
Fitchburg Steam Engine Co., Fitchburg, Mass.  
Frick Co., Waynesboro, Pa.  
Jackson Machine Works, Byron, San Francisco, Cal.  
Kingsford Foundry and Machine Works, Oswego, N. Y.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Lane & Bodley Co., John and Water Sts., Cincinnati, Ohio.  
Leffel & Co., James, Springfield, Ohio.  
Maryland Manufacturing and Construction Co., Baltimore, Md.  
Murray Iron Works Co., Burlington, Ia.  
Noye Manufacturing Co., John T., Buffalo, N. Y.  
Phoenix Iron Works Co., Meadville, Pa.  
Porter & Co., H. K., Pittsburg, Pa.  
Racine Hardware Co., Racine, Wis.  
San Francisco Tool Works, San Francisco, Cal.  
Sturtevant Co., B. F., Boston, Mass.  
Webster, Camp & Lane Machine Co., Akron, Ohio.

**652 ENGINES—Compound Condensing Steam—**

Allfree Manufacturing Co., J. B., Indianapolis, Ind.  
Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.  
Cooper Co., C. & G., Mount Vernon, Ohio.  
Fitchburg Steam Engine Co., Fitchburg, Mass.  
Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Noye Manufacturing Co., John T., Buffalo, N. Y.  
Rice & Sargent Engine Co., Providence, R. I.

**653 ENGINES—Compound Corliss Steam—**

Bullock Manufacturing Co., M. C., 1170 W. Lake St., Chicago.  
Cooper Co., C. & G., Mount Vernon, Ohio.  
Filer & Stowell Co. (Ltd.), Milwaukee, Wis.  
Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
Frick Co., Waynesboro, Pa.  
Hewes & Phillips Iron Works, Newark, N. J.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Lane & Bodley Co., Cincinnati, Ohio.  
San Francisco Tool Works, San Francisco, Cal.

**654 ENGINES—Compound Steam—**

Allfree Manufacturing Co., J. B., Indianapolis, Ind.  
Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.  
CHANDLER & TAYLOR CO., Indianapolis, Ind.  
Fitchburg Steam Engine Co., Fitchburg, Mass.  
Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.

## 654—ENGINES—Compound Steam—Continued.

Hewes & Phillips Iron Works, Newark, N. J.  
 Jackson Machine Works, Byron, San Francisco, Cal.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Noye Manufacturing Co., John T., Buffalo, N. Y.  
 Southwark Foundry and Machine Co., Philadelphia, Pa.  
 Webster, Camp & Lane Co., Akron, Ohio.  
 Westinghouse Machine Co., East Pittsburg, Pa.

## 655 ENGINES—Corliss Steam—

Allis Co., Edward P., Milwaukee, Wis.  
 Atlas Engine Works, Indianapolis, Ind.  
 Bullock Manufacturing Co., M. C., 1170 W. Lake St., Chicago.  
 Cooper Co., C. & G., Mount Vernon, Ohio.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lane & Bodley Co., John and Water Sts., Cincinnati, Ohio.  
 Murray Iron Works Co., Burlington, Ia.  
 Philadelphia Engineering Works, Mifflin and Meadow Sts., Phila.  
 Rarig Engineering Co., Columbus, Ohio.  
 St. Louis Iron and Machine Co., 1001 S. Main St., St. Louis, Mo.  
 Twin City Iron Works, Minneapolis, Minn.  
 Webster, Camp & Lane Machine Co., Akron, Ohio.

## 656 ENGINES—Double Steam—

Allfree Manufacturing Co., J. B., Indianapolis, Ind.  
 Atlas Engine Works, Indianapolis, Ind.  
 CHANDLER & TAYLOR CO., Indianapolis, Ind.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Erie Engine Works, Erie, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Ottumwa Iron Works, Ottumwa, Ia.  
 Vulcan Iron Works, Wilkesbarre, Pa.

## 657 ENGINES—Dredge Steam—

Cooke Locomotive and Machine Co., Paterson, N. J.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sueriffs Manufacturing Co., S. Water and Barclay Sts., Milwaukee, Wis.

## 658 ENGINES—Electric—

Allfree Manufacturing Co., J. B., Indianapolis, Ind.  
 Allis Co., Edward P., Milwaukee, Wis.  
 CHANDLER & TAYLOR CO., Indianapolis, Ind.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 General Electric Co., Schenectady, N. Y.  
 Valley Iron Works, Williamsport, Pa.  
 Westinghouse Electric and Manufacturing Co., Pittsburg, Pa.

## 659 ENGINES—Gas—

Allis Co., Edward P., Milwaukee, Wis.  
 American Well Works, Aurora, Ill.  
 Best Manufacturing Co., San Leandro, Cal.  
 Buckeye Manufacturing Co., Anderson, Ind.

659 ENGINES—Gas—Continued.

CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 Case Threshing Machine Co., J. I., Racine, Wis.  
 Columbus Machine Co., Columbus, Ohio.  
 Dayton Globe Iron Works, Dayton, Ohio.  
 Fairbanks, Morse & Co., Franklin and Monroe Sts., Chicago, Ill.  
 Gardner Motor Co. (Ltd.), New Orleans, La.  
 Garratt & Co. (Inc.), T., San Francisco, Cal.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Knight Manufacturing Co., Canton, Ohio.  
 Lombard Iron Works and Supply Co., Augusta, Ga.  
 Manhattan Machinery Co., 95 Liberty St., New York.  
 Matteson & Williamson Manufacturing Co., Stockton, Cal.  
 Monitor Vapor Engine and Power Co., Grand Rapids, Mich.  
 National Meter Co., 84 Chambers St., New York.  
 Olds Gasoline Engine Works, Lansing, Mich.  
 Otto Gas Engine Works, Walnut and 33d Sts., Philadelphia, Pa.  
 Pierce Engine Co., Racine, Wis.  
 Racine Hardware Co., Racine, Wis.  
 Springfield Gas Engine Manufacturing Co., Springfield, Ohio.  
 Van Duzen Gas Engine Co., 25 Broadway, Cincinnati, Ohio.  
 Weber Gas and Gasoline Engine Co., Kansas City, Mo.  
 Westinghouse Machine Co., The, East Pittsburgh, Pa.

660 ENGINES—Gasoline—

American Well Works, Aurora, Ill.  
 Best Manufacturing Co., San Leandro, Cal.  
 Buckeye Manufacturing Co., Anderson, Ind.  
 Case Threshing Machine Co., J. I., Racine, Wis.  
 Columbus Machine Co., Columbus, Ohio.  
 Dayton Globe Iron Works, Dayton, Ohio.  
 Fairbanks, Morse & Co., Franklin and Monroe Sts., Chicago, Ill.  
 Gardner Motor Co. (Ltd.), New Orleans, La.  
 Houchin & Huber, 39 53d St., Brooklyn, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Manhattan Machinery Co., 95 Liberty St., New York.  
 Murray Iron Works, Co., Burlington, Ia.  
 Newell Bros., Cleveland, Ohio.  
 Novelty Iron Works, Dubuque, Ia.  
 Olds Gasoline Engine Works, Lansing, Mich.  
 Otto Gas Engine Works, Walnut and 33d Sts., Philadelphia, Pa.  
 Racine Hardware Co., Racine, Wis.  
 Stickney Co., Charles A., St. Paul, Minn.  
 U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad. page A 2.  
 Van Duzen Gas Engine Co., Cincinnati, Ohio.  
 Westinghouse Machine Co., Pittsburgh, Pa.

661 ENGINES—Hoisting—

American Hoist and Derrick Co., St. Paul, Minn.  
 Atlas Engine Works, Indianapolis, Ind.  
 Baird Machinery Co., U., Pittsburgh, Pa.  
 Brown Hoisting and Conveying Machine Co., Cleveland, Ohio.  
 Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.

**661 ENGINES—Hoisting—Continued.**

Carlin's Sons, Thomas, Allegheny, Pa.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Flory Manufacturing Co., S., Bangor, Pa.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lebanon Manufacturing Co., Lebanon, Pa.  
 Lidgerwood Manufacturing Co., 96 Liberty St., New York.  
 Litchfield Car Works, Litchfield, Ill.  
 McKeown, H. J., Cincinnati, Ohio.  
 Otto Gas Engine Works, Philadelphia, Pa.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Webster, Camp & Lane Machine Co., Akron, Ohio.

**662 ENGINES—Horizontal Steam—**

Armington & Sims Co., Providence, R. I.  
 Atlas Engine Works, Indianapolis, Ind.  
 Bass Foundry and Machine Works, Ft. Wayne, Ind.  
 CHANDLER & TAYLOR CO., Indianapolis, Ind.  
 Erie City Iron Works, Erie, Pa.  
 Excelsior Iron Works Co., Cleveland, Ohio.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Fitchburg Steam Engine Co., Fitchburg, Mass.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Guild & Garrison, Kent Ave., c. S. 10th St., Brooklyn, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Leffel & Co., James, Springfield, Ohio.  
 Lombard Iron Works and Supply Co., Augusta, Ga.  
 Motter & Sons, George F., York, Pa.  
 Powers & Sons, Wm. T., Grand Rapids, Mich.  
 Putnam Machine Co., Fitchburg, Mass.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Willard & Co., Charles P., 13 N. Canal St., Chicago.

**663 ENGINES—Naphtha—**

Fairbanks, Morse & Co., Chicago, Ill.  
 Gas Engine and Power Co., Morris Dock Station, New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Monitor Vapor Engine and Power Co., Grand Rapids, Mich.  
 Otto Gas Engine Works, Philadelphia, Pa.

**664 ENGINES—Portable Gasoline—**

American Well Works, Aurora, Ill.  
 Charter Gas Engine Co., Sterling, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**665 ENGINES—Portable Steam—**

Allis Co., Edward P., Milwaukee, Wis.  
 Atlas Engine Works, Indianapolis, Ind.  
 Aultman & Taylor Machine Co., Mansfield, Ohio.  
 Blymyer Iron Works Co., Cincinnati, Ohio.  
 CHANDLER & TAYLOR CO., Indianapolis, Ind.  
 Coleman, H. Dudley, New Orleans, La.

**665 ENGINES—Portable Steam—Continued.**

Curtis & Co., Manufacturing Co., St. Louis, Mo.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lane & Bodley Co., Cincinnati, Ohio.  
 Leffel & Co., James, Springfield, Ohio.  
 McEwen Bros., Wellsville, N. Y.  
 Nichols & Shepard Co., Battle Creek, Mich.  
 Rand Drill Co., 128 Broadway, New York.  
 Ryan-McDonald Manufacturing Co., Baltimore, Md.  
 San Francisco Tool Works, San Francisco, Cal.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Southwark Foundry and Machine Co., Philadelphia, Pa.  
 Weber Gas & Gasoline Engine Co., Kansas City, Mo.

**666 ENGINES—Pumping—**

Allis Co., Edward P., Milwaukee, Wis.  
 Barnes Manufacturing Co., Mansfield, Ohio.  
 Barr Pumping Engine Co., 30 N. 7th St., Philadelphia, Pa.  
 Deeley & Co., Robert, 507 W. 32d St., New York.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Filer & Stowell Co. (Ltd.), Milwaukee, Wis.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Laidlaw-Dunn-Gordon Co., Cincinnati, Ohio.  
 Stilwell-Bierce & Smith-Valle Co., Dayton, Ohio.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Worthington Pumping Engine Co., Liberty St., New York.

**667 ENGINES—Stationary Steam—**

Adams Machine Co., W. T., Corinth, Miss.  
 Ajax Iron Works, Corry, Pa.  
 Allfree Manufacturing Co., J. B., Indianapolis, Ind.  
 Allis Co., Edward P., Milwaukee, Wis.  
 American Blower Co., Detroit, Mich.  
 American Fire Engine Co., Seneca Falls, New York.  
 American Well Works, Aurora, Ill.  
 Atlas Engine Works, Indianapolis, Ind.  
 Aultman & Taylor Machinery Co., Mansfield, Ohio.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Case Threshing Machine Co., J. I., Racine, Wis.  
 CHANDLER & TAYLOR CO., Indianapolis, Ind.  
 Cleveland Ship Building Co., Cleveland, Ohio.  
 Crawford & McCrimmon, Brazil, Ind.  
 Curtis & Co., Manufacturing Co., St. Louis, Mo.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Fitchburg Steam Engine Co., Fitchburg, Mass.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Globe Iron Works Co., Cleveland, Ohio.  
 Great Western Manufacturing Co., Leavenworth, Kas.  
 Kehoe & Co., Wm., Savannah, Ga.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.



## 667 ENGINES—Stationary Steam—Continued.

Lane & Bodley Co., Cincinnati, Ohio.  
 Leffel & Co., James, Springfield, Ohio.  
 Livermore Foundry and Machine Co., Memphis, Tenn.  
 Lombard Iron Works and Supply Co., Augusta, Ga.  
 Manistee Iron Works Co., Manistee, Mich.  
 Mansfield Machine Works, Mansfield, Ohio.  
 Pennsylvania Iron Works Co., 1306 Land Title Bldg., Phila.  
 Prox & Brinkman Manufacturing Co., Terre Haute, Ind.  
 Racine Hardware Co., Racine, Wis.  
 Richmond Locomotive and Machine Works, Richmond, Va.  
 Richmond Machine Works, Richmond, Ind.  
 Risdon Iron and Locomotive Works, San Francisco, Cal.  
 Robinson & Cary Co., St. Paul, Minn.  
 Salem Iron Works, Salem, N. C.  
 SINKER-DAVIS CO., THE, Indianapolis, Ind. See ad. page A 4.  
 Southern Engine and Boiler Works, Jackson, Tenn.  
 Toledo Foundry and Machine Co., Toledo, Ohio.  
 Trump Manufacturing Co., Springfield, Ohio.  
 U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad.  
 page A 2.  
 Westinghouse Machine Co., E. Pittsburg, Pa.  
 Whitney Iron Works Co., New Orleans, La.  
 Willard & Co., Charles P., 15 N. Canal St., Chicago, Ill.

## 668 ENVELOPES—

Albion Paper Co., Holyoke, Mass.  
 Barnum & Co., 120 William St., New York.  
 Berlin & Jones Envelope Co., 132 William St., New York.  
 Birnie Paper Co., Springfield, Mass.  
 Brooks & Co., Cleveland, Ohio.  
 Burford, Wm. B., Indianapolis, Ind.  
 Hill Envelope Co., W. H., Worcester, Mass.  
 Holyoke Envelope Co., Holyoke, Mass.  
 Kellogg & Co., P. P., Springfield, Mass.  
 Morgan Envelope Co., Springfield, Mass.  
 Plimpton Manufacturing Co., Hartford, Conn.  
 Price Co., Thomas W., 503 Minor St., Philadelphia, Pa.  
 Raynor & Martin Envelope Co., 115 William St., New York.  
 Richmond & Backus Co., The, Detroit, Mich.  
 White, Corbin & Co., Rockville, Conn.  
 Woodward & Tiernan Co., The, St., Louis, Mo.  
 Worcester Envelope Co., Worcester, Mass.

## 669 ENVELOPES—Document—

Barnum & Co., 120 William St., New York.  
 Diemer, John F., 67 Cortlandt St., New York.  
 Globe Co., Cincinnati, Ohio.  
 Hill Envelope Co., W. H., Worcester, Mass.  
 U. S. Desk, File and Cabinet Co., Indianapolis, Ind.

## 670 ENVELOPES—Express—

Hill Envelope Co., W. H., Worcester, Mass.  
 Holyoke Envelope Co., Holyoke, Mass.  
 Springfield Envelope Co., Springfield, Mass.

**671 EQUIPMENT—Second-hand—**

Block-Pollak Iron Co., 923 Marquette Bldg., Chicago, Ill.  
Cox & Co. (Ltd.), Justice, Jr., Bullett Bldg., Philadelphia, Pa.  
Fitzhugh & Co., Monadnock Block, Chicago, Ill.  
Hicks, F. M., 225 Dearborn St., Chicago, Ill.  
Jackson & Sharpe Co., Wilmington, Del.  
Joseph Iron Co., Isaac, Cincinnati, Ohio.  
Lehmer, J. R., Omaha, Neb.  
Males Co., The, Aetna Bldg., Cincinnati, Ohio.  
Miner & Co., E. R., 29 Broadway, New York.  
Mitshkun Co., M., Detroit, Mich.  
Motley Co., Thornton N., 43 John St., New York.  
New York Equipment Co., 71 Broadway, New York.  
Pease, F. M., 355 Dearborn St., Chicago, Ill.  
**RAILWAY EQUIPMENT & FINANCE CO., THE,** Majestic  
Bldg., Indianapolis, Ind. See ad. page B 1.  
Robinson & Orr, 419 Wood St., Pittsburg, Pa.  
Shaw, Lois, 627 New York Life Bldg., Chicago, Ill.  
Standard Equipment Co., Philadelphia, Pa.  
Torbert & Peckham, Monadnock Block, Chicago, Ill.  
Watson, Benjamin, 66 Beaver St., New York.

**672 ERASERS—Rubber—**

Akron Rubber Works, Akron, Ohio.  
American Lead Pencil Co., 491 Broadway, New York.  
Bailey & Co., C. J., Boston, Mass.  
Brooks & Co., Cleveland, Ohio.  
Burford, Wm. B., Indianapolis, Ind.  
Davidson Rubber Co., Boston, Mass.  
Dixon Crucible Co., Joseph, Jersey City, N. J.  
Eagle Pencil Co., 377 Broadway, New York.  
Goodrich Co., B. F., Akron, Ohio.  
Hadley Printing Co., The, Toledo, Ohio.  
Richmond & Backus Co., The, Detroit, Mich.  
Stacy, G. N., Tecumseh, Mich.  
Woodward & Tiernan Co., The, St. Louis, Mo.

**673 EXCAVATORS—Steam—**

Bucyrus Co., The, S. Milwaukee, Wis.  
Excelsior Iron Works, 100 Clinton St., Chicago, Ill.  
Hayward Co., 97 Cedar St., New York.  
Hunt Co., C. W., 45 Broadway, New York.  
Industrial Works, Bay City, Mich.  
Kingsford Foundry & Machine Works, Oswego, N. Y.  
Marion Steam Shovel Co., Marion Ohio.  
Montgomery Machine Co., J. H., Denver, Col.  
Osgood Dredge Co., Albany, N. Y.  
Portland, Co., Portland, Me.  
Sheriffs Manufacturing Co., Milwaukee, Wis.  
Souther & Co., John, Boston, Mass.  
Vulcan Iron Works, Chicago, Ill.  
Vulcan Iron Works, Wilkesbarre, Pa.  
Vulcan Iron Works Co., Toledo, Ohio.

## 674 EXHAUSTERS—

Buffalo Forge Co., Buffalo, N. Y.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 675 EXPANDERS—Flue—

Buck Manufacturing Co., M. M., St. Louis, Mo.

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago, Ill. See ad. page B 2.

Dudgeon, Richard, 24 Columbia St., New York.

Fairbanks, Morse & Co., Chicago, Ill.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Prosser & Son, Thomas, 15 Gold St., New York.

Q. & C. Co., Chicago, Ill.

Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.

Watson-Stillman Co., 204 E. 43d St., New York.

## 676 EXPANDERS—Tire—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

MacLeod & Clark, 457 E. Front St., Cincinnati, Ohio.

## 677 EXTINGUISHERS—Fire—

Automatic Fire Alarm & Extinguisher Co. (Ltd.), 413 Broadway, New York.

Bennett, H. R., 1217 Filbert St., Philadelphia, Pa.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Lindgren-Mahan Fire Apparatus Works, Chicago, Ill.

Liquid Carbonic Acid Manufacturing Co., 75 Illinois St., Chicago.

Meyrose Lamp & Manufacturing Co., F., St. Louis, Mo.

Muskegon Chemical Fire Engine Co., Muskegon, Mich.

Nathan Manufacturing Co., 92 Liberty St., New York.

Racine Fire Engine Co. (Ltd.), Racine, Wis.

Rumsey & Co. (Ltd.), Seneca Falls, N. Y.

Spangler Manufacturing Co., York, Pa.

Wilson & Co., F. C., 239 Lake St., Chicago, Ill.

## 678 EXTINGUISHERS—Fire—Hand Grenades—

Fire Extinguisher Manufacturing Co., 357 Canal St., New York.

Harden Hand Grenade Fire Ext. Co., 51 Dearborn St., Chicago.

Hayward & Co., S. F., 357 Canal St., New York.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Stahl, George H., 122 S. 6th Ave., Quincy, Ill.

## 679 FANS—Electric—

General Electric Co., Schenectady, N. Y.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Westinghouse Electric & Manufacturing Co., Pittsburg, Pa.

## 680 FANS—Exhaust—

American Blower Co., Detroit, Mich.

Backus Water Motor Co., Newark, N. J.

Baird Machinery Co., U., Pittsburg, Pa.

Buffalo Forge Co., Buffalo, N. Y.

Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.

C. & C. Electric Co., 143 Liberty St., New York.

**680 FANS—Exhaust—Continued.**

Champion Blower & Forge Co., Lancaster, Pa.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Foos Manufacturing Co., Springfield, Ohio.  
 Hunter Fan & Motor Co., Fulton, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Maryland Manufacturing & Construction Co., Baltimore, Md.  
 Nordyke & Marmon Co., Indianapolis, Ind.  
 Simonds Furnace Co., 50 Cliff St., New York.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**681 FANS—Ventilator—**

American Blower Co., Detroit, Mich.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Manhattan Machinery Co., 95 Liberty St., New York.  
 National Blower Works, Milwaukee, Wis.  
 Ottumwa Iron Works, Ottumwa, Iowa.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**682 FASTENERS—Car Door—**

Dayton Malleable Iron Co., The, Dayton, Ohio.

**683 FELT—Asbestos—**

Carey Manufacturing Co., The, Philip, 415 E. Pearl St., Cincinnati.  
 Chicago Fire Proof Covering Co., 48 Franklin St., Chicago, Ill.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 Kearsbey & Mattison Co., Ambler, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Spence Co., W. H., 29 Ferry St., New York.  
 Watson & Co., H. F., Erie, Pa.

**684 FELT—Asphalt—**

TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.

**685 FELT—Elastic**

City Mills Co., City Mills, Mass.  
 Ostermoor & Co., 116 Elizabeth St., New York.  
 Sperry & Beale, 39 Union Square, West, New York.  
 Tingle, House & Co., 56 Reade St., New York.

**686 FELT—Hair—**

American Hair Felt Co., 67 Beekman St., New York.  
 Armour Felt Works, Chicago, Ill.  
 Chicago Fire Proof Covering Co., 48 Franklin St., Chicago, Ill.  
 Dolge & Son, Alfred, 112 E. 13th St., New York.  
 Franklin Manufacturing Co., Franklin, Pa.  
 Russian Hair Felt Co., 62 Walker St., New York.  
 TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.

**687 FELT—Slaters'—**

TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.

## 688 FELT—Tarred—

TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
St. Louis, Mo. See ad. page A 5.

## 689 FENCE—Barbed Wire—

AMERICAN STEEL & WIRE CO., The Rookery, Chicago, Ill.  
See ad. inside front cover.

Cambria Steel Co., Philadelphia, Pa.  
Continental Wire Co., Olive St., St. Louis, Mo.  
Dillon-Griswold Wire Co., Sterling, Ill.  
Ellwood Manufacturing Co., Abram, De Kalb, Ill.  
Haish Manufacturing Co., De Kalb, Ill.  
Hartman Manufacturing Co., 277 Broadway, New York.  
Hazard Manufacturing Co., Wilkesbarre, Pa.  
Jones National Fence Co., Columbus, Ohio.  
Ludlow-Saylor Wire Co., 116 S. 4th St., St. Louis, Mo.  
New Haven Wire Manufacturing Co., New Haven, Conn.  
Northwestern Barb Wire Co., Sterling, Ill.  
Roebbing's Sons Co., John A., 117 Liberty St., New York.  
St. Louis Wire & Iron Co., St. Louis, Mo.  
Sandwich Manufacturing Co., Sandwich, Ill.  
Washburn & Moen Manufacturing Co., Worcester, Mass.

## A 698 FENCE CONSTRUCTION—

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside  
front cover.

## 690 FENCE—Iron—

Barbee Iron & Wire Works, 44 Dearborn St., Chicago, Ill.  
Barnum, E. T., Detroit, Mich.  
Braumoeller & Son, Henry, 92 W. Van Buren St., Chicago, Ill.  
Central Expanded Metal Co., 531 Wood St., Pittsburg, Pa.  
Champion Iron Co., Kenton, Ohio.  
De Kalb Fence Co., De Kalb, Ill.  
Ellis & Helfenberger, Indianapolis, Ind.  
Fiske, J. W., 39 Park Place, New York.  
Harry Steel Wire Works, O. K., St. Louis, Mo.  
Howard & Morse, 45 Fulton St., New York.  
Ludlow-Saylor Wire Co., 116 South 4th St., St. Louis, Mo.  
Mast, Foos & Co., Springfield, Ohio.  
Michigan Wire & Iron Works, Detroit, Mich.

## 691 FENCE—Ornamental Wire—

Jones National Fence Co., Columbus, Ohio.  
Page Woven Wire Fence Co., Adrian, Mich.

## 692 FENCE—Wire—

AMERICAN STEEL & WIRE CO., The Rookery, Chicago, Ill.  
See ad. inside front cover.

Barbee Wire & Iron Works, 44 Dearborn St., Chicago, Ill.  
Blockner-Evans Bale Tie Co., 819 N. 2d St., St. Louis, Mo.  
Bromwell Brush & Wire Goods Co., Cincinnati, Ohio.  
Clinton Wire Cloth Co., Clinton, Mass.  
Crawfordsville Wire Co., Crawfordsville, Ind.

692 FENCE—Wire—Continued.

Cyclone Woven Wire Fence Co., Holly, Mich.  
 Darby & Sons, Edward, 233 Arch St., Philadelphia, Pa.  
 De Kalb Fence Co., De Kalb, Ill.  
 Detroit Fence Co., The, Detroit, Mich.  
 De Witt Wire Cloth Co., 17 Warren St., New York.  
 Dwiggins Wire Fence Co., Anderson, Ind.  
 Ellis & Helfenberger, Indianapolis, Ind.  
 Frost Wire Fence Co., The, Cleveland, Ohio.  
 Gilbert & Bennett Manufacturing Co., 44 Chiff St., New York.  
 Howard & Morse, 45 Fulton St., New York.  
 Jones National Fence Co., Columbus, Ohio.  
 Keystone Woven Wire Fence Co., Peoria, Ill.  
 Lamb Fence Co., Adrian, Mich.  
 Mathews Woven Wire Fence Co., Jacksonville, Ill.  
 New Jersey Wire Cloth Co., Trenton, N. J.  
 Page Woven Wire Fence Co., Adrian, Mich.  
 Pittsburg Woven Wire Fence Co., Pittsburg, Pa.  
 Roebling's Sons Co., John A., 117 Liberty St., New York.

693 FENCE—Wrought Iron—

Page Woven Wire Fence Co., Adrian, Mich.  
 Van Dorn Iron Works Co., Cleveland, Ohio.

694 FERRULES—Brass—

American Ring Co., Waterbury, Conn.  
 Fowler, Frank, Louisville, Ky.  
 Geneva Tool Co., Geneva, Ohio.  
 Novelty Manufacturing Co., Waterbury, Conn.  
 Parker & Co., John L., Worcester, Mass.  
 Waterbury Brass Co., Waterbury, Conn.  
 Withington & Cooley Manufacturing Co., Jackson, Mich.  
 Worcester Ferrule & Manufacturing Co., Worcester, Mass.

695 FERRULES—Copper—

McKim Gasket & Manufacturing Co., South Chicago, Ill.  
 Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.

696 FERRULES—Iron—

Illinois Malleable Iron Co., W. Monroe St., Chicago, Ill.  
 Novelty Manufacturing Co., Waterbury, Conn.  
 Robertson Manufacturing Co., James, 30 Hanover St., Baltimore.  
 Union Hardware Co., Torrington, Conn.  
 Withington & Cooley Manufacturing Co., Jackson, Mich.

697 FERRULES—Seamless—

American Ring Co., Waterbury, Conn.  
 Ansonia Brass & Copper Co., 19 Cliff St., New York.  
 Parker & Co., John L., Worcester, Mass.  
 Pratt Chuck Co., Frankfort, N. Y.

698 FILERS—Band Saw—

Baldwin, Tuthill & Bolton, Grand Rapids, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Rogers & Co., S. C., Lock St., Buffalo, N. Y.

## 699 FILES—

Allerton-Clarke Co., 97 Chambers St., New York.  
 Atkins & Co., E. C., Indianapolis, Ind.  
 Barnett, G. & H., 21 Richmond St., Philadelphia, Pa.  
 BARRY SAW & SUPPLY CO., W. B., Indianapolis, Ind.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Coes & Co., James A., Newark, N. J.  
 Crerar, Adams & Co., Chicago, Ill.  
 Disston & Sons, Henry, Tacony and N. Front Sts., Philadelphia.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Kearney & Foot Co., 102 Reade St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 Manning, Maxwell & Moore, 35 Liberty St., New York.  
 Murcott & Campbell, 296 Union Ave., Brooklyn, N. Y.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Reynolds Bros., Columbus, Ohio.  
 Shapleigh Hardware Co., A. F., Wahington Ave., St. Louis, Mo.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 700 FILES—Re-Cut—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Reynolds Bros., Columbus, Ohio.

## 701 FILES—Bill and Letter—

Amberg File & Index Co., 71 Lake St., Chicago, Ill.  
 Bradley Co., Milton, Springfield, Mass.  
 Brooks & Co., Cleveland, Ohio.  
 Burford, Wm. B., Indianapolis, Ind.  
 Dick Co., A. B., 152 Lake St., Chicago, Ill.  
 Globe Co., Cincinnati, Ohio.  
 Hadley Printing Co., The, Toledo, Ohio.  
 Office & Library Co., 102 Fulton St., New York.  
 Ohmer's Sons Co., M., Dayton, Ohio.  
 Piqua Copying Machine Co., Piqua, Ohio.  
 Reynolds & Reynolds Co., Dayton, Ohio.  
 Richmond & Backus Co., The, Detroit, Mich.  
 U. S. Desk, File & Cabinet Co., Indianapolis, Ind.  
 Woodward & Tiernan Co., The, St. Louis, Mo.  
 Yawman & Erbe Manufacturing Co., Rochester, N. Y.  
 Warren Co., J. J., Worcester, Mass.

## 702 FILING CABINETS—

Amberg File & Index Co., 71 Lake St., Chicago, Ill.  
 American Desk Co., 18 E. Van Buren St., Chicago, Ill.  
 Dick Co., A. B., 152 Lake St., Chicago, Ill.

**702 FILING CABINETS—Continued.**

Globe Co., 1223 W. 8th St., Cincinnati, Ohio.  
 Macey Co., The Fred, Grand Rapids, Mich.  
 Piqua Copying Machine Co., Piqua, Ohio.  
 U. S. Desk & Office Fitting Co., Wabash Ave., Chicago, Ill.  
 Underwood Manufacturing Co., H. C., Wabash, Ind.

**704 FILTERS—Oil—**

Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Burt Manufacturing Co., Akron, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**705 FILTERS—Water—**

Champion Safety Lock Co., Cleveland, Ohio.  
 Cumberland Manufacturing Co., Boston, Mass.  
 Davis Co., The John, 51 Michigan St., Chicago, Ill.  
 Jewell Filter Co., O. H., 40 W. Quincy St., Chicago, Ill.  
 Major, A., 461 Pearl St., New York.  
 New York Filter Manufacturing Co., 26 Cortlandt St., New York.  
 Norwood Engineering Co., Florence, Mass.  
 Peck Bros. & Co., New Haven, Conn.  
 Ross Valve Co., Troy, N. Y.  
 SCAIFE & SONS, WM. B., Pittsburg, Pa. See ad. page A 8.  
 Squier Manufacturing Co., George L., Buffalo, N. Y.

**706 FIRE ALARMS—Electric—**

Automatic Fire Alarm & Ext. Co., 113 Broadway, New York.  
 Bunnell & Co., J. H., 76 Cortlandt St., New York.  
 Gamewell Fire Alarm Telegraph Co., 19 Barclay St., New York.  
 Gaynor Electric Co., Louisville, Ky.  
 National Automatic Fire Alarm Co., New York.  
 Partrick, Carter & Wilkins, 25 S. 2d St., Philadelphia, Pa.  
 Western Electric Co., 242 S. Jefferson St., Chicago, Ill.  
 Western Electrical Co., Omaha, Neb.

**707 FIRE BOXES—Steel—**

Carbon Steel Co. of America, Pittsburg, Pa.  
 Carnegie Steel Co., Pittsburg, Pa.

**708 FIRE ESCAPES—**

Barbee Wire & Iron Works, 44 Dearborn St., Chicago, Ill.  
 Bolles Iron & Wire Works, J. E., Detroit, Mich.  
 Cable Ladder & Fire Escape Co., Fairfield, Me.  
 Champion Iron Co., Kenton, Ohio.  
 Cornell, J. B. & J. M., 26th St. and 11th Ave., New York.  
 Dimond, Thomas, 128 W. 23d St., New York.  
 Jackson Architectural Iron Works, 315 E. 28th St., New York.  
 Marshall Bros., Pittsburg, Pa.  
 Rogers Iron Co., Springfield, Ohio.  
 Springfield Works, Springfield, Mass.  
 Van Dorn Iron Works Co., Cleveland, Ohio.

**709 FIRE FRONTS—Boiler—**

Chickasaw Iron Works, Memphis, Tenn.  
 Munroe & Son, R., Pittsburg, Pa.  
 Wangler Boiler & Sheet Iron Works Co., J. F., St. Louis, Mo.



- 710 FIRE KINDLERS—Locomotive—Portable—  
MacLeod & Clark, Cincinnati, Ohio.  
Simpson & Collier, Old Colony Bldg., Chicago, Ill.
- 711 FISH PLATES—  
AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
Diamond State Steel Co., Wilmington, Del.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Knoxville Iron Co., Knoxville, Tenn.  
Pennsylvania Steel Co., Steelton, Pa.  
Portland Rolling Mills, Portland, Me.  
Tredegar Co., Richmond, Va.  
Troy Steel Co., Troy, N. Y.  
Tudor Iron Works, St. Louis, Mo.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.
- 712 FISH PLATES—Steel—  
AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
Illinois Steel Co., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 713 FITTINGS—Car—  
Adams & Westlake Co., Ontario and N. Franklin Sts., Chicago, Ill.  
Dayton Manufacturing Co., Dayton, Ohio.  
Howard & Co., James L., Hartford, Conn.  
Knecht, Victor, Cincinnati, Ohio.  
Stewart & Mattson Mfg. Co., 2042 N. 10th St., Philadelphia, Pa.  
Whiting & Rosenberger Co., The, Real Estate Trust Bldg., Philadelphia, Pa.
- 714 FIXTURES—Car Door—  
Chicago Grain Door Co., Chicago, Ill.  
Dayton Malleable Iron Co., Dayton, Ohio.  
McGuire Manufacturing Co., Chicago, Ill.  
NATIONAL MALLEABLE CASTINGS CO., THE, Cleveland, Ohio. See ad. inside front cover.  
Q. & C. Co., Chicago, Ill.
- 715 FIXTURES—Fence Wire—  
Jones National Fence Co., Columbus, Ohio.
- 716 FIXTURES—Office—  
Columbia Folding Bed Co., 200 Canal St., New York.  
Enochs Lumber & Manufacturing Co., Jackson, Miss.  
Fenton Metallic Manufacturing Co., Jamestown, N. Y.  
Knittel Show Case Co., Joseph, Quincy, Ill.  
Paul & Sons Manufacturing Co., H., 1313 N. 15th St., St. Louis.  
Rochester Show Case Works, 183 N. Water St., Rochester, N. Y.  
Weaver & Sons, Joseph, Canton, Ohio.
- 717 FLAGS—Signal—  
American Flag Manufacturing Co., Easton, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Lilley & Co., M. C., Columbus, Ohio.  
Patton & Co., R. J., 222 E. 4th St., Cincinnati, Ohio.

- 718 **FLAGS—Signal—Metallic—**  
 Buck Manufacturing Co., M. M., St. Louis, Mo.
- 719 **FLANGE PLATES—Steel—**  
 Illinois Steel Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 720 **FLANGERS—Snow—**  
 Q. & C. Co., Chicago, Ill.  
 RUSSELL SNOW-PLOW CO., 751 Tremont Bldg., Boston, Mass.  
 See ad. page A 5.
- 721 **FLANGES—Pipe—**  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Latrobe Steel Co., 1200 Girard Bldg., Philadelphia, Pa.  
 Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.
- 723 **FLUE CUTTERS—**  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.
- 724 **FLUE HOLE CUTTERS—**  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.
- 725 **FLUE LINING—**  
 AMERICAN CLAY MANUFACTURING CO. of New Jersey,  
 Second National Bank Bldg., Pittsburg, Pa. See ad. page A 1.  
 GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.  
 See ad. page A 2.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 726 **FLUE ROLLERS—Pneumatic—**  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Standard Pneumatic Tool Co., Marquette Bldg., Chicago, Ill.
- 727 **FLUE ROLLERS AND CUTTERS—Pneumatic—**  
 CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago,  
 Ill. See ad. page B 2.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Standard Pneumatic Tool Co., Chicago, Ill.
- A 727 **FLUE SAFE ENDS—**  
 Seamless Steel Tube Co., Detroit, Mich.
- 728 **FLUE WELDERS—**  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.
- 729 **FLUE WELDERS, REDUCERS AND EXPANDERS—**  
 CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago,  
 Ill. See ad. page B 2.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 730 FLUX—Soldering—

Grasselli Chemical Co., 63 Wall St., New York.  
Schultz & Co., A., 1016 E. Baltimore St., Baltimore, Md.

## 731 FOLDERS—Railway—

American Bank Note Co., 86 Trinity Place, New York.  
International Bank Note Co., 18 Broadway, New York.  
Rand-Avery Supply Co., Boston, Mass.  
Rand, McNally & Co. (Inc.), 166 Adams St., Chicago, Ill.  
Western Bank Note Engraving Co., 207 Madison St., Chicago, Ill.

## 732 FOLLOWERS—Locomotive—

Baldwin Locomotive Works, 500 N. Broad St., Philadelphia, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Taunton Locomotive Manufacturing Co., Taunton, Mass.

## 733 FOLLOWER PLATES—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Pressed Steel Car Co., Pittsburg, Pa.

## 734 FORGES—

American Gas Furnace Co., 23 John St., New York.  
Baird Machinery Co., U., Pittsburg, Pa.  
Boynton & Plummer, Worcester, Mass.  
Bradley Co., Syracuse, N. Y.  
Buffalo Forge Co., Buffalo, N. Y.  
Cahill, Swift & Co., St. Louis, Mo.  
CHICAGO PNEUMATIC TOOL CO., Chicago. See ad. page B 2.  
Cleveland City Forge and Iron Co., Cleveland, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Louisville Steam Forge Co., Louisville, Ky.  
National Railway Specialty Co., Old Colony Bldg., Chicago, Ill.  
Putnam Machine Co., Fitchburg, Mass.  
Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.  
Sellers & Co., Wm. (Inc.), 1600 Hamilton St., Philadelphia, Pa.

## 735 FORGES—Riveting—Oil—Pneumatic—

Baird Machinery Co., U., Pittsburg, Pa.  
CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago, Ill. See ad. page B 2.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 736 FORGES—Portable—

Buffalo Forge Co., Buffalo, N. Y.  
Chapman, H. L., Marcellus, Mich.  
Cleveland Steam Gauge Co., Cleveland, Ohio.  
Fairbanks, Morse & Co., Chicago, Ill.  
Garrett & Co., T. (Inc.), San Francisco, Cal.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Roots & Co., P. H. & F. M., Connersville, Ind.  
Sturtevant Co., B. F., Boston, Mass.

## 737 FORGINGS—Car and Locomotive—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia, Pa.  
American Car & Foundry Co., St. Louis, Mo.  
Baker Manufacturing Co., Jas. H., Pittsburg, Pa.  
Bass Foundry & Machine Works, Ft. Wayne, Ind.

## 737 FORGINGS—Car and Locomotive—Continued.

Bethlehem Steel Co., S. Bethlehem, Pa.  
 Billings & Spencer Co., Hartford, Conn.  
 Brill Co., J. G., Philadelphia, Pa.  
 Brown & Patterson, 33 Marcy Ave., Brooklyn, N. Y.  
 Buda Foundry & Manufacturing Co., Harvey, Ill.  
 Carbon Steel Co. of America, Pittsburg, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Central Iron & Steel Co., Brazil, Ind.  
 Cleveland City Forge & Iron Co., Cleveland, Ohio.  
 Detroit Bridge & Iron Works, Detroit, Mich.  
 Diamond State Steel Co., Wilmington, Del.  
 Duquesne Forge Co., Rankin, Pa.  
 Empire Forge Co., Lansingburg, N. Y.  
 Erie Car Works, Erie, Pa.  
 Farist Steel Co., Bridgeport, Conn.  
 Foos Manufacturing Co., Springfield, Ohio.  
 Georgia Car & Manufacturing Co., Savannah, Ga.  
 Hawkins Iron Works, R. F., Springfield, Mass.  
 Howe, Brown & Co. (Ltd.), Pittsburg, Pa.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Middletown Car Works, Middletown, Pa.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 Otis Steel Co. (Ltd.), Cleveland, Ohio.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pittsburg Forge & Iron Co., Pittsburg, Pa.  
 Prosser & Son, Thomas, 15 Gold St., New York.  
 Ramapo Iron Works, Hillburn, N. Y.  
 Standard Steel Works, 1103 Harrison Bldg., Philadelphia, Pa.  
 Steel Car Forge Co., Bank of Commerce Bldg., Pittsburg, Pa.  
 Taunton Locomotive Manufacturing Co., Taunton, Mass.  
 Taylor Iron & Steel Co., High Bridge, N. J.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis, Mo. See ad. page A 5.  
 Tredegar Co., Richmond, Va.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Vulcanus Forging Co., The, 965 Hamilton St., Cleveland, Ohio.  
 Williams & Co., J. H., Brooklyn, N. Y.

## 738 FORGINGS—Drop—Iron—

Anderson & Sons, W. H., Detroit, Mich.  
 Billings & Spencer Co., Hartford, Conn.  
 Cape Ann Anchor Works, Gloucester, Mass.  
 Duquesne Forge Co., Rankin, Pa.  
 Eccles, Richard, Auburn, N. Y.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Merrill Bros., 465 Kent Ave., Brooklyn, N. Y.  
 Scranton Forging Co., Scranton, Pa.  
 Strieby & Foote Co., Newark, N. J.  
 Wyman & Gordon, Worcester, Mass.

## 739 FORGINGS—Drop—Steel—

American Saw Co., Trenton, N. J.  
 Bethlehem Steel Co., S. Bethlehem, Pa.

## 739 FORGINGS—Drop—Steel—Continued.

Billings & Spencer Co., Hartford, Conn.  
 Carbon Steel Co. of America, Pittsburg, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Farist Steel Co., Bridgeport, Conn.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 Otis Steel Co. (Ltd.), Cleveland, Ohio.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Speirs & Co., J. C., Worcester, Mass.  
 Standard Steel Works, 1103 Harrison Bldg., Philadelphia, Pa.  
 Steel Car Forge Co., Bank of Commerce Bldg., Pittsburg, Pa.  
 Strieby & Foote Co., Newark, N. J.  
 Taylor Iron & Steel Co., High Bridge, N. J.  
 Williams & Co., J. H., 9 Richards St., Brooklyn, N. Y.  
 Wyman & Gordon, Worcester, Mass.

## 740 FORGINGS—Heavy—

Central Iron & Steel Co., Brazil, Ind.  
 Cleveland City Forge & Iron Co., Cleveland, Ohio.  
 Erie Forge Co., Erie, Pa.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 Kehoe & Co., William, Savannah, Ga.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Paxton & Vierling Iron Works, Omaha, Neb.  
 Pittsburg Forge & Iron Co., Pittsburg, Pa.  
 Taunton Locomotive Manufacturing Co., Taunton, Mass.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.

## 741 FORGINGS—Nickel Steel—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.

## 742 FORGINGS—Special Shapes—

Billings & Spencer Co., Hartford, Conn.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Cleveland City Forge & Iron Co., Cleveland, Ohio.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Speirs & Co., J. C., Worcester, Mass.  
 Sternbergh & Son, J. H., Reading, Pa.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.  
 Williams & Co., J. H., 9 Richards St., Brooklyn, N. Y.  
 Wyman & Gordon, Worcester, Mass.

## 743 FORGINGS—Steel—

Bethlehem Steel Co., S. Bethlehem, Pa.  
 Billings & Spencer Co., Hartford, Conn.  
 Braeburn Steel Co., Braeburn, Pa.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carbon Steel Co. of America, Pittsburg, Pa.

743 FORGINGS—Steel—

Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Central Iron & Steel Co., Brazil, Ind.  
 Cleveland City Forge & Iron Co., Cleveland, Ohio.  
 Duquesne Forge Co., Rankin, Pa.  
 Farist Steel Co., Bridgeport, Conn.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 La Belle Steel Co., Pittsburg, Pa.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 Otis Steel Co. (Ltd.), Cleveland, Ohio.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Standard Steel Works, Harrison Bldg., Philadelphia, Pa.  
 Steel Car Forge Co., Bank of Commerce Bldg., Pittsburg, Pa.  
 Taylor Iron & Steel Co., High Bridge, N. J.  
 Union Drop Forge Co., 64 E. Ohio St., Chicago, Ill.  
 Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.

744 FORGINGS—Wrought Iron—

Ajax Forge Co., 138 Jackson Boulevard, Chicago, Ill.  
 American Bolt Co., Lowell, Mass.  
 Bridgeport Forge Co., Bridgeport, Conn.  
 Central Iron & Steel Co., Brazil, Ind.  
 Cleveland City Forge & Iron Co., Cleveland, Ohio.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Illinois Car & Equipment Co., 1475 Old Colony Bldg., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pittsburg Forge & Iron Co., Pittsburg, Pa.  
 Taunton Locomotive & Manufacturing Co., Taunton, Mass.  
 Troy Steel Co., Troy, N. Y.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.

745 FORKS—Ballast—

Ashtabula Tool Co., Ashtabula, Ohio.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

746 FORKS—Coal and Coke—

Ashtabula Tool Co., Ashtabula, Ohio.  
 Brown, Hinman & Huntington Co., Columbus, Ohio.  
 Geneva Tool Co., Geneva, Ohio.  
 Iowa Farming Tool Co., Fort Madison, Iowa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sheble & Klemm, Ashland, n. Lewis, Philadelphia, Pa.  
 Terre Haute Shovel & Tool Co., Terre Haute, Ind.

747 FORKS—Rail—

Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Iron City Tool Works, Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Verona Tool Works, Pittsburg, Pa.

## 748 FOUNDRY SUPPLIES—

GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.  
 See ad. page A 2.  
 Manning, Maxwell & Moore, 85 Liberty St., New York.  
 McCormick Co., J. S., Pittsburg, Pa.  
 McIlvaine Bros., N. 15th and Hamilton Sts., Philadelphia, Pa.  
 Obermayer Co., S., Cincinnati, Ohio.  
 Rumsey Manufacturing Co., L. M., St. Louis, Mo.  
 Smith Foundry Supply Co., J. D., Cincinnati, Ohio.  
 Whiting Foundry Equipment Co., Harvey, Ill.

## 749 FRAMES—Locomotive—

Cleveland City Forge & Iron Co., Cleveland, Ohio.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Vulcan Iron Works, Wilkesbarre, Pa.

## 750 FROGS—

Allentown Rolling Mills, Allentown, Pa.  
 Bowler & Co., Cleveland, Ohio.  
 Campbell Frog Works, Bucyrus, Ohio.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Chester Steel Castings Co., Philadelphia, Pa.  
 Cleveland Frog & Crossing Co., Cleveland, Ohio.  
 Coughlin-Sanford Switch Co., St. Paul Bldg., New York.  
 ELLIOT FROG & SWITCH CO., E. St. Louis. See ad. page A 5.  
 Falk Co., Milwaukee, Wis.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Globe Rolling Mill Co., Cincinnati, Ohio.  
 Hawkins Iron Works, R. F., Springfield, Mass.  
 INDIANAPOLIS SWITCH & FROG CO., THE, Springfield, O.  
 Johnston Railroad Frog & Switch Co., Chester, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Louisville Bridge & Iron Co., Louisville, Ky.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 MORDEN FROG & CROSSING WORKS, The Rookery, Chicago, Ill. See ad. page A 5.  
 New York Switch & Crossing Co., Hoboken, N. J.  
 Peacock's Iron Works, Selma, Ala.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pettibone, Mulliken & Co. (Inc.), Marquette Bldg., Chicago, Ill.  
 Pittsburg Steel Casting Co., Pittsburg, Pa.  
 Ramapo Iron Works, Hillburn, N. Y.  
 Steele & Sons, J. C., Statesville, N. C.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.  
 Union Switch & Signal Co., Swissvale, Pa.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Wason Manufacturing Co., Springfield, Mass.  
 Weir Frog Co., Cincinnati, Ohio.  
 Wharton & Co. (Inc.), Wm., Jr., 308 Walnut St., Philadelphia, Pa.

## 752 FROGS—Wrecking—

Alexander Car Replacer Manufacturing Co., Scranton, Pa.  
 Cleveland Frog & Crossing Co., Cleveland, Ohio.  
 ELLIOT FROG & SWITCH CO., E. St. Louis. See ad. page A 5.

752 FROGS—Wrecking—Continued.

Fairbanks, Morse & Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Kline, August, 29 State St., Utica, N. Y.  
 Laconia Car Co. Works, Laconia, N. H.  
 Tilden Co., B. E., Monadnock Block, Chicago, Ill.

753 FUEL ECONOMIZERS—Steam Boiler—

Broomell, Schmidt & Co., York, Pa.  
 Fuel Economizer Co., Matteawan, N. Y.  
 Westinghouse Machine Co., Pittsburg, Pa.

754 FURNACES—Blast—

Birmingham Boiler Works, Birmingham, Ala.  
 Carrou-Porter Boiler & Tank Co., Pittsburg, Pa.  
 Dicke Tool Co., Downers Grove, Ill.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 McCullough & Dalzell Co., 36th St., Pittsburg, Pa.  
 Rarig Engineering Co., Columbus, Ohio.

755 FURNACES—Flue Welding, Annealing and Case-Hardening—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Simpson & Collier, Old Colony Bldg., Chicago, Ill.

756 FURNACES—Heating—

Abendroth Bros., 109 Beekman St., New York.  
 Bergstrom Bros. & Co., Neenah, Wis.  
 Bibb Stove Co., B. C., Baltimore, Md.  
 Boynton Furnace Co., 207 Water St., New York.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Defiance Machine Works, Defiance, Ohio.  
 Diller, Caskey & Co., N. 6th and Berk Sts., Philadelphia, Pa.  
 Fulley & Warren Co., Troy, N. Y.  
 Hess, Snyder & Co., Massillon, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lithgow Manufacturing Co., Louisville, Ky.  
 Peck-Williamson Heating & Ven. Co., 335 W. 5th St., Cincinnati.  
 Peteler Portable Railway Manufacturing Co., Minneapolis, Minn.  
 Reading Stove Works, Reading Pa.  
 Smith & Co., H. B., Westfield, Mass.  
 Stuart & Peterson Co., Burlington, N. J.

757 FURNACES—Smoke and Gas Consuming—

Brightman Stoker Co., 201 River St., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Playford Stoker Co., Cleveland, Ohio.

758 FUSE—Blasting—

California Fuse Works, San Francisco, Cal.  
 Climax Fuse Co., 271 Broadway, New York.  
 Hecla Powder Co., 96 Liberty St., New York.  
 Rendrock Powder Co., 100 Broadway, New York.

759 FUSE—Waterproof—

Climax Fuse Co., 271 Broadway, New York.  
 Hecla Powder Co., 96 Liberty St., New York.



760 FUSEES—

Acme Railway Signal & Manufacturing Co., Peoria, Ill.  
 GRANITE RAILWAY SIGNAL CO., 447 Wood St., Pittsburg, Pa.  
 Hopewell Railroad Supply Co., Highlandville, Mass.  
 Hunt & Sons, Edmund S., Weymouth, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Western Railway Signal Co., Fostoria, Ohio.

A 760 GAS ENGINE ELECTRIC GENERATORS—

CARSE BROS. CO., Chicago, Ill. See ad. page A 3.

761 GAS LIGHTING APPARATUS—Electric—

Bunnell & Co., J. H., 76 Cortlandt St., New York.  
 Central Electric Co., 264 5th Ave., Chicago, Ill.  
 General Electric Co., Schenectady, N. Y.  
 Partrick, Carter & Wilkins, 125 S. 2d St., Philadelphia, Pa.  
 Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

A 761 GAS RECEIVERS—

SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

762 GASKETS—Air Brake—

Diamond Rubber Co., The, Akron, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

763 GASKETS—Asbestos—

Johns Manufacturing Co., H. W., 100 William St., New York.  
 Keasbey & Mattison Co., Ambler, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 U. S. Mineral Wool Co., 2 Cortlandt St., New York.

764 GASKETS—Asbestos—Metallic Woven—

Carey Manufacturing Co., Philip, 415 E. Pearl St., Cincinnati.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

765 GASKETS—Lead—

Delaney Oil & Lubricant Co., Milwaukee, Wis.  
 Hazard, A. B., St. Louis, Mo.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.  
 Vanduzen Co., E. W., Cincinnati, Ohio.

766 GASKETS—Rubber—

American Supply Manufacturing Co., 20 Warren St., New York.  
 Boston Belting Co., 256 Devonshire St., Boston, Mass.  
 Boston Woven Hose & Rubber Co., Boston, Mass., Fred'k Swift  
 & Co., Agts., Old Colony Bldg., Chicago, Ill.  
 Chicago Rubber & Belting Co., 312 Dearborn St., Chicago, Ill.  
 Empire Rubber Manufacturing Co., Trenton, N. J.  
 Goodyear Rubber Co., 787 Broadway, New York.  
 Home Rubber Co., Trenton, N. J.  
 Johns Manufacturing Co., H. W., 100 William St., New York.

766 GASKETS—Rubber—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
McKim Gasket & Manufacturing Co., S. Chicago, Ill.  
Mercer Rubber Co., Trenton, N. J.  
New Jersey Car Spring & Rubber Co., Jersey City, N. J.  
New York Belting & Packing Co., 25 Park Place, New York.  
Trenton Rubber Co., Trenton, N. J.

767 GASOLINE—

Atlantic Refining Co., 125 Arch St., Philadelphia, Pa.  
Freedom Oil Works, Freedom, Pa.  
Pacific Coast Oil Co., San Francisco, Cal.  
Standard Oil Co., of New York, 26 Broadway, New York.

768 GATES—Car Platform—

Bliss Manufacturing Co., R., Pawtucket, R. I.  
Brill Co., J. G., 62d St. and Woodland Ave., Philadelphia, Pa.

769 GATES—Crossing—

Atlas Railway Supply Co., 1654 Monadnock Block, Chicago, Ill.  
Buda Foundry & Manufacturing Co., Harvey, Ill.  
Johnson Engineering Foundry Co., 541 E. 118th St., New York.  
Pneumatic Gate Co., 100 Washington St., Chicago, Ill.  
Wilson Railway Gate Co., Birmingham, Mich.

770 GATES—Wire Fence—

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
Cyclone Woven Wire Fence Co., Holly, Mich.  
Detroit Fence Co., The, Detroit, Mich.  
Frost Wire Fence Co., The, Cleveland, Ohio.  
Jones National Fence Co., Columbus, Ohio.  
Keystone Woven Wire Fence Co., Peoria, Ill.  
Lamb Fence Co., Adrian, Mich.  
Page Woven Wire Fence Co., Adrian, Mich.

A 770 GAUGES—Air—

UTICA STEAM GAUGE CO., Frankfort, N. Y. See ad. page A 6.

771 GAUGES—Air Brake—

Ashton Valve Co., 271 Franklin St., Boston, Mass.  
Crosby Steam Gage & Valve Co., Oliver St., Boston, Mass.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
UTICA STEAM GAUGE CO., Frankfort, N. Y. See ad. page A 6.

772 GAUGES—Air Brake—Duplex—

American Steam Gauge Co., Boston, Mass.  
Ashton Valve Co., The, 271 Franklin St., Boston, Mass.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

773 GAUGES—Back Pressure—

Ashcroft Manufacturing Co., 85 Liberty St., New York.  
Crosby Steam Gage & Valve Co., Oliver St., Boston, Mass.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Star Brass Manufacturing Co., 53 Oliver St., Boston, Mass.

- A 773 GAUGES—Car—  
 UTICA STEAM GAUGE CO., Frankfort, N. Y. See ad. page A 6.
- 774 GAUGES—Car Heater—  
 American Steam Gauge Co., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 775 GAUGES—Car Lighting—  
 American Steam Gauge Co., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 776 GAUGES—Carpenters'—  
 Disston & Sons, Henry, Tacony and N. Front Sts., Philadelphia.  
 Gage Tool Co., Vineland, N. J.  
 Jennings & Co., C. E., 79 Reade St., New York.  
 Knapp & Cowles Manufacturing Co., Bridgeport, Conn.  
 Ohio Tool Co., Columbus, Ohio.
- 777 GAUGES—Combination—  
 American Steam Gauge Co., Boston, Mass.  
 Crosby Steam Gage & Valve Co., Oliver St., Boston, Mass.  
 Star Brass Manufacturing Co., 53 Oliver St., Boston, Mass.
- 778 GAUGES—Locomotive—  
 American Steam Gauge Co., Boston, Mass.  
 Ashcroft Manufacturing Co., 85 Liberty St., New York.  
 Ashton Valve Co., 271 Franklin St., Boston, Mass.  
 Crosby Steam Gage & Valve Co., Oliver St., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Star Brass Manufacturing Co., 53 Oliver St., Boston, Mass.  
 UTICA STEAM GAUGE CO., Frankfort, N. Y. See ad. page A 6.
- 779 GAUGES—Locomotive Spring Balance—  
 Ashcroft Manufacturing Co., 87 Liberty St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Star Brass Manufacturing Co., 53 Oliver St., Boston, Mass.
- 781 GAUGES—Recording—  
 American Steam Gauge Co., Boston, Mass.  
 Ashcroft Manufacturing Co., 87 Liberty St., New York.  
 Bristol Co., Waterbury, Conn.  
 Crosby Steam Gage & Valve Co., Oliver St., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Star Brass Manufacturing Co., 53 Oliver St., Boston, Mass.
- 782 GAUGES—Scratch—  
 Billings & Spencer Co., Hartford, Conn.  
 Gage Tool Co., Vineland, N. J.  
 Standard Tool Co., Athol, Mass.
- 783 GAUGES—Steam—  
 American Steam Gauge Co., 36 Chardon St., Boston, Mass.  
 Ashcroft Manufacturing Co., 87 Liberty St., New York.  
 Cleveland Steam Gauge Co., Cleveland, Ohio.  
 Crosby Steam Gage & Valve Co., Oliver St., Boston, Mass.

783 GAUGES—Steam—Continued.

Fowler, Frank, Louisville, Ky.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Star Brass Manufacturing Co., 53 Oliver St., Boston, Mass.

UTICA STEAM GAUGE CO., Frankfort, N. Y. See ad. page A 6.

Watson-Stillman Co., 204 E. 43d St., New York.

784 GAUGES—Surface—

Athol Machine Co., Athol, Mass.

Billings & Spencer Co., Hartford, Conn.

Brown & Sharpe Manufacturing Co., Providence, R. I.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Sawyer Tool Co. (Inc.), Fitchburg, Mass.

Standard Tool Co., Athol, Mass.

785 GAUGES—Tie Plate—

Buda Foundry & Manufacturing Co., Harvey, Ill.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

786 GAUGES—Time Recording—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Star Brass Manufacturing Co., 53 Oliver St., Boston, Mass.

787 GAUGES—Tool—

Bostwick-Braun Co., The, Toledo, Ohio.

Buck Manufacturing Co., M. M. St. Louis, Mo.

Cahill, Swift & Co., St. Louis, Mo.

Chapin's Sons Co., H., Pine Meadow, Conn.

Crerar, Adams & Co., Chicago, Ill.

Dwight, E. P., 407 Sansom St., Philadelphia, Pa.

Haines, Jones & Cadbury Co., Philadelphia, Pa.

Hibbard, Spencer, Bartlett & Co., Chicago, Ill.

Hunt Co., C. W., 45 Broadway, New York.

James & Co. (Inc.), Chattanooga, Tenn.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Linley Supply Co., Ezra H., St. Louis, Mo.

Louisville Car Wheel & Railway Supply Co., Louisville, Ky.

New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.

Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.

Pratt & Whitney Co., The, Hartford, Conn.

Sherburne & Co., 53 Oliver St., Boston, Mass.

Simmons Hardware Co., St. Louis, Mo.

Standard Tool Co., Cleveland, Ohio.

Starrett Co., L. S., Athol, Mass.

ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

788 GAUGES—Track—

American Brake Beam Co., Chicago, Ill.

Buck Manufacturing Co., M. M., St. Louis, Mo.

Buda Foundry & Machine Co., Harvey, Ill.

Crerar, Adams & Co., Chicago, Ill.

Dayton Malleable Iron Co., Dayton, Ohio.

Fairbanks, Morse & Co., Chicago, Ill.

Iron City Tool Works (Ltd.), Pittsburg, Pa.

## 788 GAUGES—Track—Continued.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Manning, Maxwell & Moore, 85 Liberty St., New York.  
 Q. & C. Co., Chicago, Ill.  
 Sheffield Car Co., Three Rivers, Mich.  
 Verona Tool Works, Pittsburg, Pa.

## 789 GAUGES—Vacuum—

American Steam Gauge Co., Boston, Mass.  
 Ashcroft Manufacturing Co., 87 Liberty St., New York.  
 Ashton Valve Co., Boston, Mass.  
 Crosby Steam Gauge & Valve Co., Oliver St., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Star Brass Manufacturing Co., Boston, Mass.  
 Weiskopf, A., 69 S. Canal St., Chicago, Ill.

## 790 GAUGES—Water—

American Steam Gauge Co., Boston, Mass.  
 Ashcroft Manufacturing Co., 87 Liberty St., New York.  
 Ashton Valve Co., 271 Franklin St., Boston, Mass.  
 Crosby Steam Gauge & Valve Co., Oliver St., Boston, Mass.  
 Garratt & Co. (Inc.), T., San Francisco, Cal.  
 Haydenville Co., Haydenville, Mass.  
 Kendall Manufacturing Co., Buffalo, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lidgerwood Manufacturing Co., 96 Liberty St., New York.  
 MICHIGAN LUBRICATOR CO., Detroit. See ad. page A 1.  
 Springfield Brass Co., Springfield, Ohio.  
 Star Brass Manufacturing Co., 53 Oliver St., Boston, Mass.  
 Yale & Towne Manufacturing Co., Stamford, Conn.

## 791 GAUGE COCKS—

American Steam Gauge Co., 36 Chardon St., Boston, Mass.  
 Ashcroft Manufacturing Co., 87 Liberty St., New York.  
 Crosby Steam Gauge & Valve Co., Oliver St., Boston, Mass.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Jenkins Bros., 71 John St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 792 GAUGE COCKS—Siphon—

Ashcroft Manufacturing Co., 87 Liberty St., New York.  
 Crosby Steam Gauge & Valve Co., Oliver St., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 793 GEARS—Reducing—

CHICAGO PNEUMATIC TOOL CO., Chicago. See ad. page B 2.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 794 GEARING—

Allentown Foundry and Machine Works, Allentown, Pa.  
 Chase Turbine Manufacturing Co., Orange, Mass.  
 CHICAGO PNEUMATIC TOOL CO., Chicago. See ad. page B 2.  
 Chickasaw Iron Works, Memphis, Tenn.  
 Dayton Globe Iron Works, Dayton, Ohio.

794 GEARING—Continued.

Ehrsam Machine Co., J. B., Enterprise, Kas.  
 Filler & Stowell (Ltd.), Milwaukee, Wis.  
 Great Western Manufacturing Co., Leavenworth, Kas.  
 Kilburn, Lincoln & Co. (Inc.), Fall River, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4  
 Lane & Bodley Co., Cincinnati, Ohio.  
 Leffel & Co., James, Springfield, Ohio.  
 Link-Belt Machinery Co., Stewart Ave., Chicago, Ill.  
 Mack Wood Working Co., H. A., Weatherly, Pa.  
 Mansfield Machine Works, Mansfield, Ohio.  
 Nordyke & Marmon Co., Indianapolis, Ind.  
 Poole & Son Co., Robert, Baltimore, Md.  
 Richmond City Mill Works, Richmond, Ind.  
 Stilwell-Bierce & Smith-Valle Co., Dayton, Ohio.  
 Taylor Iron and Steel Co., High Bridge, N. J.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Walker Co., Cleveland, Ohio.  
 Wheland, George W., Chattanooga, Tenn.

795 GIMLETS—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Chester Manufacturing Co., Chester, Conn.  
 Cincinnati Tool Co., Pearl and Ludlow Sts., Cincinnati, Ohio.  
 Crerar, Adams & Co., Chicago, Ill.  
 Deuse, Amos H. and J. S., Chester, Conn.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Jennings & Co., C. E., 79 Reade St., New York.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd), New Orleans, La.  
 Norton & Co., H. M., Chester, Conn.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Stortz & Son, John, 210 Vine St., Philadelphia, Pa.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

796 GLASS—Beveled Plate—

Anderson & Co., B. L., 45 W. Superior St., Chicago, Ill.  
 Donnelly & Co., J. R., 54 Classon Ave., Brooklyn, N. Y.

797 GLASS—Chipped—

American Window Glass Co., Pittsburg, Pa.  
 Hafner-Lothman Manufacturing Co., St. Louis, Mo.

798 GLASS—Embossed—

French & Co., Samuel H., 4th St., Philadelphia, Pa.  
 Lamb, J. & R., New York.  
 Misch's Sons, George A., 143 Ontario St., Chicago, Ill.  
 Bedding, Baird & Co., 83 Franklin St., Boston, Mass.

A798 GLASS—Enameled—

Lamb, J. & R., 59 Carmine St., New York.  
Misch's Sons, George A., 143 Ontario St., Chicago, Ill.  
Redding, Baird & Co., 83 Franklin St., Boston, Mass.

799 GLASS—Ground—

American Window Glass Co., Pittsburg, Pa.  
Golding & Sons Co., Trenton, N. J.  
Misch's Sons, George A., 143 Ontario St., Chicago, Ill.  
Standard Plate Glass Co., Butler, Pa.  
Wiarda & Co., John C., 273 Green St., Brooklyn, N. Y.

800 GLASS—Mosaic—

Lamb, J. & R., 59 Carmine St., New York.  
McCully & Miles Co., 178 Wabash Ave., Chicago, Ill.  
Redding, Baird & Co., 83 Franklin St., Boston, Mass.  
St. Paul Stained Glass Co., St. Paul, Minn.

801 GLASS—Plate—

American Plate Glass Co., 717 Grant St., Pittsburg, Pa.  
DePauw Co., W. C., New Albany, Ind.  
Howard Plate Glass Co., Duquesne, Pa.  
Marsh Plate Glass Co., Carnegie Bldg., Pittsburg, Pa.  
Pittsburg Plate Glass Co., Pittsburg, Pa.  
Standard Plate Glass Co., Butler, Pa.

802 GLASS—Stained—

Continental Stained Glass Works, 440 Tremont St., Boston, Mass.  
Copeland Glass Co., Denver, Col.  
Dukes & Schmitt, 2129 Market St., Philadelphia, Pa.  
Gorham Manufacturing Co., Providence, R. I.  
Groves, R. S., 617 Broad St., Philadelphia, Pa.  
Keystone Stained Glass Works, 271 S. 5th St., Philadelphia, Pa.  
McCully & Miles Co., 178 Wabash Ave., Chicago, Ill.  
Misch's Sons, George A., 143 Ontario St., Chicago, Ill.  
St. Paul Stained Glass Co., St. Paul, Minn.  
Wells Glass Co., 1441 Monadnock Block, Chicago, Ill.

803 GLASS—Window—

American Window Glass Co., Pittsburg, Pa.  
Baker Bros. & Co., Baltimore, Md.  
Barnesville Glass Co. (Inc.), Barnesville, Ohio.  
Bodine Glass Works, Williamstown, N. J.  
BURDSAL CO., THE A., Indianapolis, Ind.  
Campbell Co., T., Pittsburg, Pa.  
Cleveland Window Glass Co., Cleveland, Ohio.  
Cohansey Glass Mfg. Co., 822 Witherspoon Bldg., Philadelphia.  
Cowen's Son, Newman, 394 Broadway, New York.  
Cunningham Glass Co., D. O., Pittsburg, Pa.  
Dalzell, Gilmore & Leighton Co., Findlay, Ohio.  
Dunkirk Window Glass Co., Dunkirk, Ind.  
Globe Window Glass Co., Findlay, Ohio.  
Holbrook Bros., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

803 GLASS—Window—Continued.

Seim & Co., Henry, Baltimore, Md.  
Semon, Bache & Co., New York.  
Van Horn & Griffin, New York.  
Wood Glass Co., Syracuse, N. Y.

804 GLASS GAUGE PRESERVERS—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Morse, R. F., Providence, R. I.

805 GLOBES—Electric Light—

Baggot, E., 169 Adams St., Chicago, Ill.  
Dithridge & Co., Pittsburg, Pa.  
Gillinder & Sons, 135 Oxford St., Philadelphia, Pa.  
Gleason Manufacturing Co., E. P., New York.  
Mount Washington Glass Co., New Bedford, Mass.  
Murray & Co., J. J., Trenton, cor. E. Willard Ave., Philadelphia.  
Phoenix Glass Co., 15 Murray St., New York.  
Rodgers, J. L., Pittsburg, Pa.  
Washington Glass Manufacturing Co., Washington, Pa.

806 GLOBES—Lantern—

Adams & Westlake Co., Chicago, Ill.  
Evans Co., Thomas, Pittsburg, Pa.  
Gill Bros. & Co., Steubenville, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Libbey Glass Co., The, Toledo, Ohio.  
Lippincott Glass Co., Alexandria, Ind.  
Long Island, Flint Glass Works, Maujer St., Brooklyn, N. Y.  
McKee & Co., S., Pittsburg, Pa.  
Sneath Glass Co., Hartford City, Ind.  
Wormser Glass Co., Pittsburg, Pa.

807 GLUE—

Armour Glue Works, 205 LaSalle St., Chicago, Ill.  
Behr & Co., Herman, 75 Beekman St., New York.  
Bird Glue Co., Cincinnati, Ohio.  
Bullock & Son, John, Baltimore, Md.  
Cudahy Packing Co., South Omaha, Neb.  
Delaney & Co., 209 N. 3d. St., Philadelphia, Pa.  
Grand Rapids Glue Co., Grand Rapids, Mich.  
Hoyt, Arthur S., 90 W. Broadway, New York.  
Lister Agricultural Chemical Works, Newark, N. J.  
Major, A., 461 Pearl St., New York.  
Mathiason Manufacturing Co., P. B., St. Louis, Mo.  
Michigan Carbon Works, Detroit, Mich.  
Swift & Co., Union Stock Yards, Chicago, Ill.  
Tiemann & Co., D. F., 140 W. Broadway, New York.

808 GLUE—Leather—

TOPPAN CO., THE J. S., Great Northern Bldg., Chicago, Ill.  
See ad. page A 8.



## 800 GONGS—Electric—

Anchor Electric Co., 71 Federal St., Boston, Mass.  
 Bunnell & Co., J. H., 78 Cortlandt St., New York.  
 Edwards & Co., 144th St. and 4th Ave., New York.  
 Gaynor Electric Co., Louisville, Ky.  
 Jones & Son, J., 64 Cortlandt St., New York.  
 Partrick, Carter & Wilkins, 125 S. 2d St., Philadelphia, Pa.  
 Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

## 810 GOVERNORS—

Comstock Manufacturing Co., Kalamazoo, Mich.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Filer & Stowell Co. (Ltd.), Milwaukee, Wis.  
 Gardner Governor Co., Quincy, Ill.  
 Judson Governor Co., Rochester, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Leffel & Co., James, Springfield, Ohio.  
 Lombard Water Wheel Governor Co., Boston, Mass.  
 Mason Regulator Co., Boston, Mass.  
 Monarch Governor and Machine Co., Indianapolis, Ind.  
 Murray Iron Works Co., Burlington, Ia.  
 Pickering Governor Co., Rochester, N. Y.  
 Sensitive Governor Co., Indianapolis, Ind.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Water's Governor Co., Boston, Mass.

## 811 GOVERNORS—Pump—

Davis Co., The John, 51 Michigan St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 812 GRADERS—Road—

American Road Machine Co., Kenneth Square, Pa.  
 Austin Manufacturing Co., F. C., Harvey, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Over, Ewald, Indianapolis, Ind.  
 San Jose Agricultural Works, San Jose, Cal.  
 Western Wheeled Scraper Co., Aurora, Ill.

## 813 GRAPHITE—

Binney & Smith, 257 Pearl St., New York.  
 Detroit Graphite Manufacturing Co., Detroit, Mich.  
 Dixon Crucible Co., Joseph, Jersey City, N. J.  
 Graphite Lubricating Co., Bound Brook, N. J.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 National Paint Works, Williamsport, Pa.  
 Obermayer Co., S., Cincinnati, Ohio.

## 814 GRATINGS—Iron—

Braumoeller & Son, Henry, 92 W. Van Buren St., Chicago, Ill.  
 Champion Iron Co., Kenton, Ohio.  
 Chickasaw Iron Works, Memphis, Tenn.  
 Cochrane, David W., 195 S. 5th Ave., New York.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Dimond, Thomas, 128 W. 33d St., New York.

**814 GRATINGS—Iron—Continued.**

Globe Iron Works, 35 Indiana St., Chicago, Ill.  
 Hickok Manufacturing Co., W. O., Harrisburg, Pa.  
 Stanwood & Co., George M., Portland, Me.  
 Van Dorn Iron Works Co., Cleveland, Ohio.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**815 GRAVEL—Roofing—**

GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.  
 See ad. page A 2.

**816 GREASE—Belt—**

Delaney Oil and Lubricant Co., Milwaukee, Wis.  
 Freedom Oil Works, Freedom, Pa.  
 Ilsley, Doubleday & Co., 229 Front St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McWilliams (Ltd.), R., New Orleans, La.  
 Union Grease Co., Boston, Mass.

**817 GREASE—Car—**

Delaney Oil and Lubricant Co., Milwaukee, Wis.  
 Fiske Bros. Refining Co., 59 Water St., New York.  
 Frazer Lubricator Co., 31 Superior St., Chicago, Ill.  
 Ilsley, Doubleday & Co., 229 Front St., New York.  
 Reliance Oil and Grease Co., Cleveland, Ohio.  
 Waters-Pierce Oil Co., St. Louis, Mo.  
 World Refining Co., Easton, Pa.

**818 GREASE—Cup—**

Delaney Oil and Lubricant Co., Milwaukee, Wis.  
 Fiske Bros. Refining Co., 59 Water St., New York.  
 Globe Oil Co., Cleveland, Ohio.  
 Ilsley, Doubleday & Co., 229 Front St., New York.  
 McWilliams (Ltd.), R., New Orleans, La.  
 Monitor Oil Co., Cleveland, Ohio.

**819 GREASE—Cylinder—**

Binghamton Oil Refining Co., Binghamton, N. Y.  
 Delaney Oil and Lubricant Co., Milwaukee, Wis.  
 Ilsley, Doubleday & Co., 229 Front St., New York.  
 Reliance Oil and Grease Co., Cleveland, Ohio.

**820 GREASE—Graphite—**

Dixon Crucible Co., Joseph, Jersey City, N. J.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**822 GRINDERS—Car Wheel—**

Allentown Rolling Mills, Allentown, Pa.  
 Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Springfield Manufacturing Co., Bridgeport, Conn.

## 823 GRINDERS—Center—

Baird Machinery Co., U., Pittsburg, Pa.  
 Dwight Slate Machine Co., Hartford, Conn.  
 Empire Engine & Motor Co., Orangeburg, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Stow Manufacturing Co., Binghamton, N. Y.

## 824 GRINDERS—Cutter—

Baird Machinery Co., U., Pittsburg, Pa.  
 Cincinnati Milling Machine Co., Cincinnati, Ohio.  
 Dwight Slate Machine Co., Hartford, Conn.  
 Garvin Machine Co., Spring and Varick Sts., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Norton Emery Wheel Co., Worcester, Mass.  
 Pratt & Whitney Co., Hartford, Conn.  
 Wells Bros. & Co., Greenfield, Mass.

## 825 GRINDERS—Emery—

Abrasive Material Co., The, Philadelphia, Pa.  
 American Woodworking Machine Co., 141 Broadway, New York.  
 Atkins & Co., E. C., Indianapolis, Ind.  
 Barnes Co., W. F. & John, Rockford, Ill.  
 Capital City Machine Works, Columbus, Ohio.  
 Cordesman, Meyer & Co., 170 W. 2d St., Cincinnati, Ohio.  
 Diamond Machine Co., Providence, R. I.  
 Emerson, Smith & Co. (Ltd.), Beaver Falls, Pa.  
 Florence Machine Co., Florence, Mass.  
 Foos Manufacturing Co., Springfield, Ohio.  
 Hamilton Machine Tool Co., Hamilton, Ohio.  
 Hill, Clarke & Co., 156 Oliver St., Boston, Mass.  
 Kimball Bros. & Sprague, 153 Center St., Brockton, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lodge & Shipley Machine Co., Cincinnati, Ohio.  
 Manning, Maxwell & Moore, 85 Liberty St., New York.  
 Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.  
 Northampton Emery Wheel Co., 20 S. Canal St., Chicago, Ill.  
 Rogers & Co., C. B., Norwich, Conn.  
 Rogers & Co., S. C., Lock St., Buffalo, N. Y.  
 Sebastian Lathe Co., Cincinnati, Ohio.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Springfield Manufacturing Co., Bridgeport, Conn.  
 Standard Emery Wheel Co., Albany, N. Y.  
 Steadman's Foundry and Machine Works, Aurora, Ind.  
 Strelinger Co., Charles, 96 Bates St., Detroit, Mich.  
 Williamson & Co., D. W., Indianapolis, Ind.  
 Wilmarth & Marmon Co., Grand Rapids, Mich.

## 826 GRINDERS—Lathe Center—

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Leland & Faulconer Manufacturing Co., Detroit, Mich.  
 Trump Bros. Machine Co., Anchorage St., Wilmington, Del.

827 GRINDERS—Portable Emery—

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Stow Flexible Shaft Co., Philadelphia, Pa.  
 Stow Manufacturing Co., Binghamton, N. Y.

828 GRINDERS—Roll—

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lobdell Car Wheel Co., Wilmington, Del.  
 Springfield Manufacturing Co., Bridgeport, Conn.

829 GRINDERS—Saw—

Baird Machinery Co., U., Pittsburg, Pa.  
 Hinds, Thomas, Malone, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Q. & C. Co., Chicago, Ill.

830 GRINDERS—Shafting—

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Springfield Manufacturing Co., Bridgeport, Conn.

831 GRINDERS—Twist Drill—

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 Norton Emery Wheel Co., Worcester, Mass.  
 Standard Tool Co., Cleveland, Ohio.

832 GRINDSTONES—

Baird Machinery Co., U., Pittsburg, Pa.  
 Cleveland Stone Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Kirby, W. M., Pittsburg, Pa.  
 Obermayer Co., S., Cincinnati, Ohio.  
 Whitman & Barnes Manufacturing Co., Akron, Ohio.  
 Wood & Co. (Ltd.), Walter R., 285 Front St., New York.

833 GRINDSTONE BOXES—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Poole & Son Co., Robert, Baltimore, Md.  
 San Francisco Tool Works, San Francisco, Cal.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

834 GRINDSTONE FIXTURES—

Baird Machinery Co., U., Pittsburg, Pa.  
 Cleveland Stone Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Kirby, W. M., Pittsburg, Pa.  
 Peck, Stow & Wilcox Co., Southington, Conn.  
 Pennsylvania Hardware Co., Reading, Pa.

## 835 GRINDSTONE FRAMES—

Baird Machinery Co., U., Pittsburg, Pa.  
 Athol Machine Co., Athol, Mass.  
 Cleveland Stone Co., Cleveland, Ohio.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Howard Iron Works, Buffalo, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Kirby, W. M., Pittsburg, Pa.  
 Putnam Machine Co., Fitchburg, Mass.  
 Sebastian Lathe Co., Cincinnati, Ohio.

## 836 GUARDS—Cattle—

Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Kalamazoo Railroad Velocipede and Car Co., Kalamazoo, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Merrill-Stevens Manufacturing Co., Niles, Mich.  
 Q. & C. Co., Chicago, Ill.  
 Railroad Supply Co., The, Bedford Bldg., Chicago, Ill.  
 Roberts Car and Wheel Co., The, Three Rivers, Mich.  
 Seymour, F. C., 418 The Rookery, Chicago, Ill.  
 Sheffield Car Co., Three Rivers, Mich.

## 837 GUARDS—Foot—

Fairbanks, Morse & Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 838 HAMMERS—Hand—

Atha Tool Co., Newark, N. J.  
 Atkins & Co., E. C., Indianapolis, Ind.  
 Baldwin, Tuthill & Bolton, Grand Rapids, Mich.  
 Billings & Spencer Co., Hartford, Conn.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dicke Tool Co., Downer's Grove, Ill.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Harvey, Henry H., Boston, Mass.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Higgins & Son, John C., 165 W. Kinzie St., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Osborne & Co., C. S., Newark, N. J.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

**838 HAMMERS—Hand—Continued.**

Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Stover Manufacturing Co., Freeport, Ill.  
 Verona Tool Works, Pittsburg, Pa.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**840 HAMMERS—Drop—**

Baush & Harris Machine Tool Co., Springfield, Mass.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Billings & Spencer Co., Hartford, Conn.  
 Bliss Co., E. W., Plymouth St., Brooklyn, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Manning, Maxwell & Moore, 85 Liberty St., New York.  
 Pratt & Whitney Co., Hartford, Conn.  
 Waterbury Farrel Foundry and Machine Co., Waterbury, Conn.  
 Williams, White & Co., Moline, Ill.

**841 HAMMERS—Foot Power—**

Capital City Machine Works, Columbus, Ohio.  
 Devore & Co., L. M., Freeport, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**842 HAMMERS—Pile Driver—**

Brown Hoisting and Conveying Machine Co., Cleveland, Ohio.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lambert Hoisting Engine Co., Newark, N. J.  
 Lidgerwood Manufacturing Co., 96 Liberty St., New York.  
 Mundy, J. S., Newark, N. J.  
 Osgood Dredge Co., Albany, New York.  
 Toledo Foundry and Machine Co., Toledo, Ohio.  
 VULCAN IRON WORKS, 59 Milwaukee Ave., Chicago, Ill.

**843 HAMMERS—Pneumatic—**

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago.  
 See ad. page B 2.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Philadelphia Pneumatic Tool Co., Philadelphia, Pa.  
 Q. & C. Co., Chicago, Ill.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
 Standard Pneumatic Tool Co., Marquette Bldg., Chicago, Ill.  
 Standard Railway Equipment Co., Great Northern Bldg., Chicago.

**844 HAMMERS—Steam Forge—**

Baird Machinery Co., U., 1123 Water St., Pittsburg, Pa.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Bradley Co., Syracuse, N. Y.  
 CARSE BROS. CO., 64 Wabash Ave., Chicago. See ad. page A 3.  
 Cleveland Punch and Shear Works Co., The, Cleveland, Ohio.  
 Dudgeon, Richard, 24 Columbia St., New York.  
 Dupont Manufacturing Co., St. Johnsbury, N. Y.  
 Jenkins & Lingle, Bellefonte, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**844 HAMMERS—Steam Forge—Continued.**

Manning, Maxwell & Moore, 85 Liberty St., New York.  
 Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Walker Co., Cleveland, Ohio.

**A844 HAMMERS—Steam Pile—**

Vulcan Iron Works, 59 Milwaukee Ave., Chicago, Ill.

**845 HAMMERS—Trip—Air Cushion—**

Bradley Co., Syracuse, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Merrill Bros., 465 Kent Ave., Brooklyn, N. Y.

**846 HANDLES—Adze—**

Frankfort Handle Manufacturing Co., Frankfort, Ind.  
 Harrisburg Handle Co., Bristol, Tenn.  
 Hartwell Bros., Vincennes, Ind.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Turner, Day & Woolworth Manufacturing Co., Louisville, Ky.  
 Winona Wood Rim Co., Winona, Minn.

**847 HANDLES—Auger—**

Bliss Manufacturing Co., R., Pawtucket, R. I.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Ohio Tool Co., Columbus, Ohio.  
 Peck, Stow & Wilcox Co., Southington, Conn.  
 Piqua Handle and Manufacturing Co., Piqua, Ohio.  
 Sandusky Tool Co., Sandusky, Ohio.  
 Williams & Marvin, Deep River, Conn.

**848 HANDLES—Axe—**

Flint, Nathan Ripley, East Hiram, Me.  
 Frankfort Handle Manufacturing Co., Frankfort, Ind.  
 Harrisburg Handle Co., Bristol, Tenn.  
 Hartwell Bros., Vincennes, Ind.  
 Hartwell Manufacturing Co., Huntingburg, Ind.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Nashville Spoke and Handle Co., Nashville, Tenn.  
 Standard Handle Co., Knoxville, Tenn.

**849 HANDLES—Blacksmiths'—**

Frankfort Handle Manufacturing Co., Frankfort, Ind.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Paris Handle Factory, Paris, Tex.  
 Trenton Handle Manufacturing Co., Trenton, Mo.  
 Turner, Day & Woolworth Manufacturing Co., Louisville, Ky.

**850 HANDLES—Chisel—**

Bliss Manufacturing, R., Pawtucket, R. I.  
 Chapin's Sons Co., H., Pine Meadow, Conn.  
 Hartwell Manufacturing Co., Huntingburg, Ind.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**850 HANDLES—Chisel—Continued.**

Nashville Spoke and Handle Co., Nashville, Tenn.  
Ohio Tool Co., Columbus, Ohio.  
Piqua Handle and Manufacturing Co., Piqua, Ohio.  
Sandusky Tool Co., Sandusky, Ohio.  
Stearns & Co., E. C., Syracuse, N. Y.  
Swan Co., James, Seymour, Conn.  
Union Hardware Co., Torrington, Conn.

**851 HANDLES—Door—**

Barbee Wire and Iron Works, 44 Dearborn St., Chicago, Ill.  
Bostwick-Braun Co., The, Toledo, Ohio.  
Brittan & Matthes Co., Pittsburg, Pa.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Corbin, H. F., New Britain, Conn.  
Crerar, Adams & Co., Chicago, Ill.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
James & Co. (Inc.), Chattanooga, Tenn.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
Metal Stamping Co., 386 W. Broadway, New York.  
New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
Stearns & Co., E. C., Syracuse, N. Y.  
Yale & Towne Manufacturing Co., Stamford, Conn.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**852 HANDLES—File—**

Chantrell Tool Co., Reading, Pa.  
Chapin's Sons Co., H., Pine Meadow, Conn.  
Hartwell Manufacturing Co., Huntingburg, Ind.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Novelty Wood Works, Union City, Pa.  
Ohio Tool Co., Columbus, Ohio.  
Peck, Stow & Wilcox Co., Southington, Conn.  
Piqua Handle and Manufacturing Co., Piqua, Ohio.  
Sandusky Tool Co., Sandusky, Ohio.

**853 HANDLES—Hammer—**

Estes & Sons, E. B., 45 John St., New York.  
Frankfort Handle Manufacturing Co., Frankfort, Ind.  
Harrisburg Handle Co., Bristol, Tenn.  
Hartwell Bros., Vincennes, Ind.  
Hartwell Manufacturing Co., Huntingburg, Ind.  
Hartzell Handle Co., Huntington, W. Va.  
Harvey, H. H., Boston, Mass.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Nashville Spoke and Handle Co., Nashville, Tenn.  
Piqua Handle and Manufacturing Co., Piqua, Ohio.  
Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
Standard Handle Co., Knoxville, Tenn.



## 854 HANDLES—Hatchet—

Frankfort Handle Manufacturing Co., Frankfort, Ind.  
 Harrisburg Handle Co., Bristol, Tenn.  
 Hartwell Bros., Vincennes, Ind.  
 Hartwell Manufacturing Co., Huntingburg, Ind.  
 Hartzell Handle Co., Huntington, W. Va.  
 Kelsey, Horatio, Clinton, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Nashville Spoke and Handle Co., Nashville, Tenn.  
 Piqua Handle and Manufacturing Co., Piqua, Ohio.

## 855 HANDLES—Pick—

Frankfort Handle Manufacturing Co., Frankfort, Ind.  
 Harrisburg Handle Co., Bristol, Tenn.  
 Hartwell Bros., Vincennes, Ind.  
 Hartwell Manufacturing Co., Huntingburg, Ind.  
 Hartzell Handle Co., Huntington, W. Va.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 Kelsey, Horatio, Clinton, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Nashville Spoke and Handle Co., Nashville, Tenn.  
 Standard Handle Co., Knoxville, Tenn.

## 856 HANDLES—Screwdriver—

Chapin's Sons Co., H., Pine Meadow, Conn.  
 Estes & Sons, E. B., 45 John St., New York.  
 Nashville Spoke and Handle Co., Nashville, Tenn.  
 Piqua Handle and Manufacturing Co., Piqua, Ohio.  
 Union Hardware Co., Torrington, Conn.

## 857 HANDLES—Shovel—Iron—

Buck Manufacturing Co., M. M., St. Louis, Mo.

## 858 HANDLES—Sledge—

Frankfort Handle Manufacturing Co., Frankfort, Ind.  
 Harrisburg Handle Co., Bristol, Tenn.  
 Hartwell Bros., Vincennes, Ind.  
 Hartwell Manufacturing Co., Huntingburg, Ind.  
 Hartzell Handle Co., Huntington, W. Va.  
 Harvey, H. H., Boston, Mass.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Nashville Spoke and Handle Co., Nashville, Tenn.  
 Standard Handle Co., Knoxville, Tenn.

## 859 HANDLES—Tool—

Baldwin Co., James, Manchester, N. H.  
 Bostwick-Braun Co., The, Toledo, Ohio  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hartigan, Wm. R., Collinsville, Conn.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hill Bros. & Co., Williamsburg, Mass.

**859 HANDLES—Tool—Continued.**

Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Ohio Boat Oar Co., Cleveland, Ohio.  
 Ohio Tool Co., Columbus, Ohio.  
 Piqua Handle and Manufacturing Co., Piqua, Ohio.  
 Pittsburg Supply Co. (Ltd.), Pittsburg Pa.  
 Redlich Manufacturing Co., 2 Oak St., Chicago, Ill.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Union Hardware Co., Torrington, Conn.  
 Winona Wood Rim Co., Winona, Minn.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**860 HANGERS—Machine—**

Akron Iron and Steel Co., 206 Fulton St., New York.  
 Allfree Manufacturing Co., J. B., Indianapolis, Ind.  
 American Tool and Machine Co., Boston, Mass.  
 American Wood Working Machine Co., 141 Broadway, New York.  
 Barnard & Leas Manufacturing Co., Moline, Ill.  
 Case Manufacturing Co., Columbus, Ohio.  
 Chickasaw Iron Works, Memphis, Tenn.  
 Clot & Meese, San Francisco, Cal.  
 Comstock Manufacturing Co., Kalamazoo, Mich.  
 Dayton Globe Iron Works, Dayton, Ohio.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Fairmount Machine Co., 2106 Wood St., Philadelphia, Pa.  
 Fischer Foundry and Machine Co., Pittsburg, Pa.  
 Frank Machinery Co., Buffalo, N. Y.  
 Fritz, George J., St. Louis, Mo.  
 Great Western Manufacturing Co., Leavenworth, Kas.  
 Hendy Machine Works, Joshua, San Francisco, Cal.  
 Howard Iron Works, Buffalo, N. Y.  
 Jeffrey Manufacturing Co., Columbus, Ohio.  
 Jones & Laughlins (Ltd.), Pittsburg, Pa.  
 Kilburn, Lincoln & Co. (Inc.), Fall River, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lane & Bodley Co., Cincinnati, Ohio.  
 Leonard & McCoy, 118 Liberty St., New York.  
 Lombard Iron Works and Supply Co., Augusta, Ga.  
 Marshall Bros., Pittsburg, Pa.  
 Medart Patent Pulley Co., 277 S. Canal St., Chicago, Ill.  
 Murray Iron Works Co., Burlington, Ia.  
 Noye Manufacturing Co., John T., Buffalo, N. Y.  
 Penfield & Son, J. W., Willoughby, Ohio.  
 Poole & Son Co., Robert, Baltimore, Md.  
 Sellers & Co. (Inc.), Wm., Philadelphia, Pa.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Stilwell-Bierce & Smith-Valle Co., Dayton, Ohio.  
 Variety Iron Works, York, Pa.  
 Waterbury Farrel Foundry and Machine Co., Waterbury, Conn.

## 862 HASPS—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Conroy, P. J., Island Rd. and S. 75th St., Philadelphia, Pa.  
 Crerar, Adams & Co., Chicago, Ill.  
 Cronk Hanger Co., Elmira, N. Y.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Vaughan & Bushnell Mfg. Co., 877 Carroll Ave., Chicago, Ill.  
 Wheeling Hinge Co., Wheeling, W. Va.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## A862 HATCHETS—Car—Ventilated—

McIntosh, H. M., 502 Great Northern Bldg., Chicago, Ill.

## 863 HATCHES—

Atha Tool Co., Newark, N. J.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Findlay Axe and Tool Co., Findlay, Ohio.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Knickerbacker, Henry, Ballston Spa., N. Y.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Peck, Stow & Wilcox Co., Southington, Conn.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Terre Haute Shovel and Tool Co., Terre Haute, Ind.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## A863 HEADLIGHTS—Acetylene Gas—

CARSE BROS. CO., Chicago, Ill. See ad. page A 3.

## 864 HEADLIGHTS—Locomotive—

Adams & Westlake Co., N. Franklin St., Chicago, Ill.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Buhl Stamping Co., Detroit, Mich.  
 CARSE BROS. CO., Chicago, Ill. See ad. page A 3.

## 864 HEADLIGHTS—Locomotive—Continued.

Cincinnati Railway Supply Co., Cincinnati, Ohio.  
 Dayton Manufacturing Co., Dayton, Ohio.  
 Dietz Co., R. E., 60 Laight St., New York.  
 Dressel Railway Lamp Works, The, 3876 Park Ave., New York.  
 Ham Manufacturing Co., C. T., Rochester, N. Y.  
 Ohio Brass Co., Mansfield, Ohio.  
 Rochester Headlight Works, Rochester, N. Y.  
 Schroeder Headlight Co., Evansville, Ind.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Smith, Thomas T., 352 Pearl St., New York.  
 Star Headlight Co., Rochester, N. Y.  
 Steam Gauge and Lantern Co., Syracuse, N. Y.  
 Wheeler Red Reflector Co., Boston, Mass.  
 ZELNICKER, WALTER A., 208 N. 3d. St., St. Louis, Mo. See  
 ad. page A 5.

## 865 HEADLIGHTS—Locomotive—Electric—

Pyle National Electric Headlight Co., Chicago, Ill.

## 866 HEATERS—Automatic Freight Car—

Baker, William C., 143 Liberty St., New York.  
 Safety Car Heating and Lighting Co., 160 Broadway, New York.

## 867 HEATERS—Car—

Baker, William C., 143 Liberty St., New York.  
 Brill Co., J. G., 62d St. and Woodland Ave., Philadelphia, Pa.  
 (Spear's) Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Creamer & Co., W. G., 96 John St., New York.  
 Fuller & Warren Warming and Ventilating Co., Troy, N. Y.  
 Gold Car Heating Co., Frankfort and Cliff Sts., New York.  
 Griffing Iron Co., A. A., 66 Centre St., New York.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 McGuire Manufacturing Co., 122 N. Sangamon St., Chicago, Ill.  
 Pittsburg Stove and Range Co., 610 Wood St., Pittsburg, Pa.  
 Safety Car Heating and Lighting Co., 160 Broadway, New York.

## 868 HEATERS—Depot—Hot Water—

Baker, William C., 143 Liberty St., New York.  
 Pittsburg Stove and Range Co., 610 Wood St., Pittsburg, Pa.

## 869 HEATERS—Feed Water—

Adams Machine Co., W. T., Corinth, Miss.  
 Albany Steam Trap Co., Albany, N. Y.  
 Allen & Sons, William, Worcester, Mass.  
 Baragwanath & Son, William, 48 W. Division St., Chicago, Ill.  
 Bonar & Co., James, Carnegie Bldg., Pittsburg, Pa.  
 Casey & Hedges Manufacturing Co., Chattanooga, Tenn.  
 Harrisburg Pipe Bending Co., (Ltd.), Harrisburg, Pa.  
 Hoppes Manufacturing Co., Springfield, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Kroeschell Bros. Co., 29 Erie St., Chicago, Ill.  
 Lane & Bodley Co., John and Water Sts., Cincinnati, Ohio.  
 Phoenix Iron Works Co., Meadville, Pa.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Wickes Bros., Saginaw, Mich.

## 870 HEATERS—Feed Water—Lime Extracting—

Hoppes Manufacturing Co., Springfield, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.

## 871 HEATERS—Steam—

Abendroth Bros., 109 Beekman St., New York.  
 American Radiator Co., Lake and Dearborn Sts., Chicago, Ill.  
 Anderson Foundry and Machine Works, Anderson, Ind.  
 Carton Furnace Co., Utica, N. Y.  
 Davis & Son, Isaac B., Hartford, Conn.  
 Detroit Heating and Lighting Co., Detroit, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morgan Boiler Co., D. F., Akron, Ohio.  
 Nason Manufacturing Co., 71 Beekman St., New York.  
 N. Y. Central Iron Works Co., Geneva, N. Y.  
 Reading Stove Works, Reading, Pa.  
 Richardson & Boynton Co., 232 Water St., New York.  
 Southern Engine and Boiler Works, Jackson, Tenn.  
 Williams Bros., 104 W. State St., Ithaca, N. Y.

## 872 HEATERS AND PURIFIERS—Feed Water—

Anis Co., Edward P., Milwaukee, Wis.  
 Harrison Safety Boiler Works, Allegheny Ave., Philadelphia, Pa.  
 Hoppes Manufacturing Co., Springfield, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.  
 Whitlock Coil Pipe Co., Elmwood, Conn.  
 Worthington Pumping Engine Co., 120 Liberty St., New York.

## 873 HEATING SYSTEMS—Car—

Gold Car Heating Co, Frankfort and Cliff Sts., New York.  
 Safety Car Heating and Lighting Co. 160 Broadway, New York.

## 874 HEAT REGULATING APPARATUS—

Powers Regulator Co., The, 111 5th Ave., New York.

## 875 HINGES—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**876 HINGES—Brass—**

Aetna Nut Co., Waterbury, Conn.  
 Bommer Bros., 351 Jay St., Brooklyn, N. Y.  
 Conroy, P. J., Island Rd. and S. 75th St., Philadelphia, Pa.  
 Root, Charles J., Bristol, Conn.  
 Stover Manufacturing Co., Freeport, Ill.  
 Van Wagoner & Williams Hardware Co., 14 Warren St., N. Y.

**877 HINGES—Door—**

Aetna Nut Co., Southington, Conn.  
 Bommer Bros., 351 Jay St., Brooklyn, N. Y.  
 Clark Sons Co., Wm., Pittsburg, Pa.  
 Dayton Manufacturing Co., Dayton, Ohio.  
 New England Butt Co., Providence, R. I.  
 Pulman Sash Balance Co., Rochester, N. Y.  
 Smith & Egge Manufacturing Co., Bridgeport, Conn.  
 Stover Manufacturing Co., Freeport, Ill.  
 Wheeling Hinge Co., Wheeling W. Va.

**878 HINGES—Gate—**

Chalfant Manufacturing Co., Lancaster, Pa.  
 Haven Co., James L., 56 Plum St., Cincinnati, Ohio.  
 New England Butt Co., Providence, R. I.  
 Racine Hardware Co., Racine, Wis.  
 Union Manufacturing Co., New Britain, Conn.

**879 HINGES—Spring—**

Arcade Manufacturing Co., Freeport, Ill.  
 Bommer Bros., 351 Jay St., Brooklyn, N. Y.  
 De Vore & Co., L. M., Freeport, Ill.  
 Hart Manufacturing Co., M. C., Detroit, Mich.  
 Haven Co., James L., 56 Plum St., Cincinnati, Ohio.  
 Racine Hardware Co., Racine, Wis.  
 Stover Manufacturing Co., Freeport, Ill.

**880 HODS—Coal—**

Bostwick-Braum Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Orerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Iron Clad Manufacturing Co., 22 Cliff St., New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Knecht, Victor, 195 Wade St., Cincinnati, Ohio.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 881 HOISTS—

American Hoist and Derrick Co., St. Paul, Minn.  
 American Well Works, Aurora, Ill.  
 Baird Machinery Co., U., 1123 Water St., Pittsburg, Pa.  
 Boston & Lockport Block Co., Boston, Mass.  
 Brown Hoisting and Conveying Machine Co., Cleveland, Ohio.  
 Case Manufacturing Co., Columbus, Ohio.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Gates Iron Works, Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Knecht Bros. Co., The, Cincinnati, Ohio.  
 Lidgerwood Manufacturing Co., 96 Liberty St., New York.  
 Manning, Maxwell & Moore, 85 Liberty St., New York.  
 Otto Gas Engine Works, Philadelphia, Pa.  
 Q. & C. Co., Chicago, Ill.  
 Stickney Co., Charles A., St. Paul, Minn.  
 Stow Flexible Shaft Co., Philadelphia, Pa.  
 Vulcan Iron Works Co., Toledo, Ohio.  
 Weber Gas and Gasoline Engine Co., Kansas City, Mo.

## 882 HOISTS—Chain—

Baird Machinery Co., U., 1123 Water St., Pittsburg, Pa.  
 Chisholm & Moore Manufacturing Co., The, Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Standard Pneumatic Tool Co., Chicago, Ill.

## 883 HOISTS—Electric—

American Hoist and Derrick Co., St. Paul, Minn.  
 Baird Machinery Co., U., 1123 Water St., Pittsburg, Pa.  
 Hunt Co., C. W., 45 Broadway, New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lambert Hoisting Engine Co., Newark, N. J.  
 Lidgerwood Manufacturing Co., 96 Liberty St., New York.  
 Rawson & Morrison Manufacturing Co., Cambridgeport, Mass.

## 884 HOISTS—Pneumatic—

Baird Machinery Co., U., Pittsburg, Pa.  
 CHICAGO PNEUMATIC TOOL CO., Chicago. See ad. page B 2.  
 Garry Iron and Steel Roofing Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Manning, Maxwell & Moore, 85 Liberty St., New York.  
 Q. & C. Co., Chicago, Ill.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
 Standard Pneumatic Tool Co., Marquette Bldg., Chicago, Ill.

## 885 HOISTS—Rock—

Gates Iron Works, Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 886 HOOKS—Belt—

Brown Bros. & Co., Providence, R. I.  
 Budlong & Co., S. E., Providence, R. I.

886 HOOKS—Belt—Continued.

Chase & Co., F. A., Providence, R. I.  
Jewell Belt Hook Co., Hartford, Conn.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Sewing Machine and Supplies Co., Boston, Mass.  
Upsen Nut Co., Unionville, Conn.

887 HOOKS—Car—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Stanwood & Co., Geo. M., Portland, Me.  
Taylor Iron and Steel Co., High Bridge, N. J.  
Vaughan & Bushnell Mfg. Co., 877 Carroll Ave., Chicago, Ill.

888 HOOKS AND RINGS—Malleable—

Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.

889 HOSE—Rubber—

Akron Rubber Works, Akron, Ohio.  
American Supply Manufacturing Co., 20 Warren St., New York.  
Atkins & Co., E. C., Indianapolis, Ind.  
Boston Belting Co., 256 Devonshire St., Boston, Mass.  
Boston Woven Hose & Rubber Co., Boston, Mass., Fred'k Swift  
& Co., Agts., Old Colony Bldg., Chicago, Ill.  
CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago,  
Ill. See ad. page B 2.  
Chicago Rubber & Belting Co., 312 Dearborn St., Chicago, Ill.  
Combination Roll & Rubber Co., 38 Park Row, New York.  
Crescent Belting & Packing Co., Trenton, N. J.  
Diamond Rubber Co., The, Akron, Ohio.  
Empire Rubber Manufacturing Co., Trenton, N. J.  
Goodrich Co., B. F., Akron, Ohio.  
Goodyear Rubber Co., 787 Broadway, New York.  
Gutta Percha & Rubber Mfg. Co., 35 Warren St., New York.  
Home Rubber Co., Trenton, N. J.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Mechanical Rubber Co., Cleveland, Ohio.  
Mercer Rubber Co., Trenton, N. J.  
New Jersey Car Spring & Rubber Co., Jersey City, N. J.  
New York Belting & Packing Co., 25 Park Place, New York.  
New York Rubber Co., 84 Reade St., New York.  
Revere Rubber Co., 63 Franklin St., Boston, Mass.  
Trenton Rubber Co., Trenton, N. J.  
United Rubber Co., Trenton, N. J.

890 HOSE BANDS—

Goodrich Rubber Co., Akron, Ohio.  
Sherman Manufacturing Co., H. B., Battle Creek, Mich.  
Yerden, William, Ft. Plain, N. Y.

891 INDICATORS—Locomotive—

American Steam Gauge Co., Boston, Mass.  
Ashcroft Manufacturing Co., 85 Liberty St., New York.  
Crosby Steam Gauge & Valve Co., Oliver St., Boston, Mass.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.



## 892 INDICATORS—Speed—

American Steam Gauge Co., Boston, Mass.  
 Ashcroft Manufacturing Co., 85 Liberty St., New York.  
 Bowsher Co., N. P., South Bend, Ind.  
 Boyer Railway Speed Recorder Co., St. Louis, Mo.  
 Crosby Steam Gage & Valve Co., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDonnell Odometer Co., Kedzie Ave., Chicago, Ill.  
 Robertson & Sons, James L., 204 Fulton St., New York.  
 Schaffer & Budenberg, Bedford, Brooklyn, N. Y.  
 Star Brass Manufacturing Co., Boston, Mass.  
 Woodman Manufacturing & Supply Co., R., Boston, Mass.

## 893 INJECTORS—

American Injector Co., Detroit, Mich.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Chaplin-Fulton Manufacturing Co. (Inc.), 91 1st St., Pittsburg, Pa.  
 Crosby Steam Gage & Valve Co., Boston, Mass.  
 Detroit Lubricator Co., Detroit, Mich.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Fowler, Frank, Louisville, Ky.  
 Hancock Inspirator Co., Boston, Mass.  
 Hayden & Derby Mfg. Co., The, 85 Liberty St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lonergan & Co., J. E., 211 Race St., Philadelphia, Pa.  
 Lunkenheimer Co., Cincinnati, Ohio.  
 Nathan Manufacturing Co., 92 Liberty St., New York.  
 National Tube Works Co., 70 Federal St., Boston, Mass.  
 Penberthy Injector Co., Detroit, Mich.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

## 894 INJECTORS—Boiler Oil—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lunkenheimer Co., 213 E. 8th St., Cincinnati, Ohio.  
 MICHIGAN LUBRICATOR CO., 671 Beaubien St., Detroit, Mich.  
 See ad. page A 1.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

## 895 INJECTORS—Exhaust Steam—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Motter & Sons, George F., Princess St., York, Pa.

## 896 INJECTORS—Kerosene Oil—

Detroit Lubricator Co., Detroit, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 897 INK—

Blair Co., J. C., Huntingdon, Pa.  
 Brooks & Co., Cleveland, Ohio.  
 Burford, Wm. B., Indianapolis, Ind.  
 Carter's Ink Co., Boston, Mass.  
 Continental Manufacturing Co., Philadelphia, Pa.  
 Levison & Blythe Manufacturing Co., St. Louis, Mo.  
 Richmond & Backus Co., The, Detroit, Mich.

897. INK—Continued.

Sanford Manufacturing Co., 219 Fulton St., Chicago, Ill.  
 Spencerian Pen Co., 450 Broome St., New York.  
 Underwood & Co., John, 30 Vesey St., New York.  
 Woodward & Tiernan Co., The, St. Louis, Mo.

898 INK—Drawing—

Higgins & Co., C. M., 168 8th St., Brooklyn, N. Y.  
 Keuffel & Esser, 127 Fulton St., New York.  
 Stafford, S. S., 605 Washington St., New York.

899 INK—Rubber Stamp—

Carter's Ink Co., Boston, Mass.  
 Continental Manufacturing Co., 330 N. 3d St., Philadelphia, Pa.  
 Detroit Rubber Stamp Co., Detroit, Mich.  
 Stafford, S. S., 605 Washington St., New York.  
 Webster Co., F. S., 246 Congress St., Boston, Mass.

900 INKSTANDS—

Anchor Silver Plate Co., Oswego, N. Y.  
 Brooks & Co., Cleveland, Ohio.  
 Burford, Wm. B., Indianapolis, Ind.  
 Davis, Emery, 41 Park Row, New York.  
 Hull Manufacturing Co., 99 Madison St., Chicago, Ill.  
 Mount Washington Glass Co., New Bedford, Mass.  
 Richmond & Backus Co., The, Detroit, Mich.  
 Woodward & Tiernan Co., The, St. Louis, Mo.

901 INSPIRATORS—

Hancock Inspirator Co., 51 Oliver St., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

902 INSTRUMENTS—Drawing—

Aloe & Co., A. S., 415 N. Broadway, St. Louis, Mo.  
 Alteneder & Sons, Theo., 945 Ridge Ave., Philadelphia, Pa.  
 Benoit, A. V., 148 Fulton St., New York.  
 Brown & Sharpe Manufacturing Co., Providence, R. I.  
 Gurley, W. & L. E., Troy, N. Y.  
 Keuffel & Esser Co., 127 Fulton St., New York.  
 Starrett Co., L. S., Athol, Mass.

903 INSTRUMENTS—Engineering—

Benoit, A. V., 148 Fulton St., New York.  
 Berger & Sons, C. L., Boston, Mass.  
 Brandis' Sons & Co., F. E., Brooklyn, N. Y.  
 Fauth & Co., Washington, D. C.  
 Gardam & Son., Wm., 45 Rose St., New York.  
 Gurley, W. & L. E., Troy, N. Y.  
 Heller & Brightly, Spring Garden St. and Ridge Ave., Philadelphia, Pa.  
 Keuffel & Esser Co., 127 Fulton St., New York.  
 Queen & Co., 1010 Chestnut St., Philadelphia, Pa.  
 Robertson & Sons, J. L., 204 Fulton St., New York.  
 Schaffer & Budenburg, Bedford, Brooklyn, N. Y.  
 Young & Sons, 43 N. 7th St., Philadelphia, Pa.

## 904 INSTRUMENTS—Surveying—

Aloe & Co., A. S., 415 N. Broadway, St. Louis, Mo.  
 Berger & Sons, C. L., Boston, Mass.  
 Devoe & Reynolds, F. W., New York and Chicago.  
 Gardam & Son, W., 45 Rose St., New York.  
 Gurley, W. & L. E., Troy, N. Y.  
 Heller & Brightly, Spring Garden St. and Ridge Ave., Philadelphia, Pa.  
 Keuffel & Esser Co., 127 Fulton St., New York.  
 Queen & Co., 1010 Chestnut St., Philadelphia, Pa.  
 Richardson & Son, C. F., Athol, Mass.  
 Slocomb & Co., J. T., 236 Eddy St., Providence, R. I.  
 Starrett Co., L. S., Athol, Mass.  
 Young & Sons, 43 N. 7th St., Philadelphia, Pa.

## 905 INSULATORS—Glass—

Brookfield Glass Co., 218 Broadway, New York.  
 Hemingray Glass Co., Covington, Ky.  
 Wormser Glass Co., Pittsburg, Pa.

## 906 INSULATORS—Porcelain—

Brunt Porcelain Works, E. Liverpool, Ohio.  
 Greenwood Pottery Co., Trenton, N. J.  
 Imperial Porcelain Works, Trenton, N. J.  
 Peru Electric Manufacturing Co., Peru, Ind.  
 Thomas & Sons Co., R., E. Liverpool, Ohio.  
 Union Porcelain Works, Brooklyn, N. Y.

## 907 INSULATOR BRACKETS—

Butler & Co., George R., Sandusky, Ohio.  
 Sommer's Son, John, Newark, N. J.

## 908 INSULATOR PINS—

Baldwin Co., James, Manchester, N. H.  
 Brownlee & Co., Detroit, Mich.  
 Butler & Co., George R., Sandusky, Ohio.  
 Gilliland Electric Co., Adrain, Mich.  
 Locke, Fred M., Victor, N. Y.  
 Sommer's Son, John, Newark, N. J.  
 Sterling & Son, Monroe, Mich.

## 909 INTERLOCKING APPARATUS—

Allentown Rolling Mills, Allentown, Pa.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Taylor Signal Co., Buffalo, N. Y.  
 Union Switch & Signal Co., The, Swissvale, Pa.  
 Weir Frog Co., The, Cincinnati, Ohio.

## 910 IRON—Angle—

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Birmingham Rolling Mill Co., Birmingham, Ala.  
 Cambria Steel Co., Philadelphia, Pa.

910 IRON—Angle—Continued.

Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Cleveland Rolling Mill Co., Cleveland, Ohio.  
 Diamond State Steel Co., Wilmington, Del.  
 Ewald Iron Co., St. Louis, Mo.  
 Globe Rolling Mill Iron & Steel Co., 165 W. Pearl St., Cincinnati.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lloyd's Sons Co., H., Pittsburg, Pa.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
 Portage Iron Co. (Ltd.), Duncansville, Pa.  
 Roberts Co., A. & P., 261 S. 4th St., Philadelphia, Pa.  
 Tudor Iron Works, 415 Lucas St., St. Louis, Mo.  
 Union Iron & Steel Co., Youngstown, Ohio.

911 IRON—Bar—

Aetna-Standard Iron and Steel Co., Bridgeport, Ohio.  
 Allentown Rolling Mills, Allentown, Pa.  
 Altoona Iron Co., Altoona, Pa.  
 AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 American Steel Hoop Co., Battery Park Bldg., New York.  
 Birmingham Rolling Mill Co., Birmingham, Ala.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Buhl Sons Co., Detroit, Mich.  
 Burden Iron Co., Troy, N. Y.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Cambria Steel Co., Philadelphia, Pa.  
 Camden Iron Works, 400 Chestnut St., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Crerar, Adams & Co., Chicago, Ill.  
 Diamond State Steel Co., Wilmington, Del.  
 Duncannon Iron Co., 122 Race St., Philadelphia, Pa.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Ewald Iron Co., St. Louis, Mo.  
 Globe Rolling Mill Iron & Steel Co., Cincinnati, Ohio.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Joseph & Bro., Joseph, Cincinnati, Ohio.  
 Kansas City Bolt & Nut Co., Kansas City, Mo.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Knoxville Iron Co., Knoxville, Tenn.  
 Lake Erie Iron Co., Cleveland, Ohio.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 Mahoning Valley Iron Co., Youngstown, Ohio.  
 Mitchell, Tranter & Co., Cincinnati, Ohio.  
 Muncie Iron & Steel Co., Muncie, Ind.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Old Dominion Iron and Nail Works Co., Richmond, Va.  
 Otis Steel Co. (Ltd.), Cleveland, Ohio.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Pennsylvania Bolt & Nut Co., Lebanon, Pa.

911 IRON—Bar—Continued.

Pickands, Mather & Co., Cleveland, Ohio.  
 Pittsburg Forge & Iron Co., Pittsburg, Pa.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Portage Iron Co. (Ltd.), Duncansville, Pa.  
 Reading Iron Co., Reading, Pa.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Sheonberger Steel Co., Pittsburg, Pa.  
 Springfield Iron Co., Springfield, Ill.  
 Sternbergh & Son, J. H., Reading, Pa.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.  
 Union Iron & Steel Co., Youngstown, Ohio.  
 West End Rolling Mill Co. and Chain Works, Lebanon, Pa.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

912 IRON—Beams—

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Birmingham Rolling Mill Co., Birmingham, Ala.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Champion Iron Co., Kenton, Ohio.  
 Cornell, J. B. & J. M., 26th St. and 11th Ave., New York.  
 Dimond, Thomas, 128 W. 33d St., New York.  
 Jackson Architectural Iron Works, 315 E. 28th St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Paxton & Vierling Iron Works, Omaha, Neb.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
 Pollock & Co., William B., Youngstown, Ohio.  
 Trenton Iron Co., Trenton, N. J.

913 IRON—Black Plates—

Aetna-Standard Iron & Steel Co., Bridgeport, Ohio.  
 AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Cumberland Steel & Tin Plate Works, Cumberland, Md.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Whitaker Iron Co., Wheeling, W. Va.

914 IRON—Black Plate Bars—

Aetna-Standard Iron & Steel Co., Bridgeport, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

915 IRON—Boiler Plates—

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Birmingham Rolling Mill Co., Birmingham, Ala.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Cleveland Rolling Mill Co., Cleveland, Ohio.  
 Globe Rolling Mill Iron & Steel Co., 163 W. Pearl St., Cincinnati.  
 Howe, Brown & Co. (Ltd.), Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

910 IRON—Angle—Continued.

Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Cleveland Rolling Mill Co., Cleveland, Ohio.  
 Diamond State Steel Co., Wilmington, Del.  
 Ewald Iron Co., St. Louis, Mo.  
 Globe Rolling Mill Iron & Steel Co., 165 W. Pearl St., Cincinnati.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lloyd's Sons Co., H., Pittsburg, Pa.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
 Portage Iron Co. (Ltd.), Duncansville, Pa.  
 Roberts Co., A. & P., 261 S. 4th St., Philadelphia, Pa.  
 Tudor Iron Works, 415 Lucas St., St. Louis, Mo.  
 Union Iron & Steel Co., Youngstown, Ohio.

911 IRON—Bar—

Aetna-Standard Iron and Steel Co., Bridgeport, Ohio.  
 Allentown Rolling Mills, Allentown, Pa.  
 Altoona Iron Co., Altoona, Pa.  
 AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 American Steel Hoop Co., Battery Park Bldg., New York.  
 Birmingham Rolling Mill Co., Birmingham, Ala.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Buhl Sons Co., Detroit, Mich.  
 Burden Iron Co., Troy, N. Y.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Cambria Steel Co., Philadelphia, Pa.  
 Camden Iron Works, 400 Chestnut St., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Cramer, Adams & Co., Chicago, Ill.  
 Diamond State Steel Co., Wilmington, Del.  
 Duncannon Iron Co., 122 Race St., Philadelphia, Pa.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Ewald Iron Co., St. Louis, Mo.  
 Globe Rolling Mill Iron & Steel Co., Cincinnati, Ohio.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Joseph & Bro., Joseph, Cincinnati, Ohio.  
 Kansas City Bolt & Nut Co., Kansas City, Mo.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Knoxville Iron Co., Knoxville, Tenn.  
 Lake Erie Iron Co., Cleveland, Ohio.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 Mahoning Valley Iron Co., Youngstown, Ohio.  
 Mitchell, Tranter & Co., Cincinnati, Ohio.  
 Muncie Iron & Steel Co., Muncie, Ind.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Old Dominion Iron and Nail Works Co., Richmond, Va.  
 Otis Steel Co. (Ltd.), Cleveland, Ohio.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Pennsylvania Bolt & Nut Co., Lebanon, Pa.

## 911 IRON—Bar—Continued.

Pickands, Mather & Co., Cleveland, Ohio.  
 Pittsburg Forge & Iron Co., Pittsburg, Pa.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Portage Iron Co. (Ltd.), Duncansville, Pa.  
 Reading Iron Co., Reading, Pa.  
 Republic Iron & Steel Co., Chicago, Ill.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Sheonberger Steel Co., Pittsburg, Pa.  
 Springfield Iron Co., Springfield, Ill.  
 Sternbergh & Son, J. H., Reading, Pa.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.  
 Union Iron & Steel Co., Youngstown, Ohio.  
 West End Rolling Mill Co. and Chain Works, Lebanon, Pa.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 912 IRON—Beams—

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Birmingham Rolling Mill Co., Birmingham, Ala.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Champion Iron Co., Kenton, Ohio.  
 Cornell, J. B. & J. M., 26th St. and 11th Ave., New York.  
 Dimond, Thomas, 128 W. 33d St., New York.  
 Jackson Architectural Iron Works, 315 E. 28th St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Paxton & Vierling Iron Works, Omaha, Neb.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
 Pollock & Co., William B., Youngstown, Ohio.  
 Trenton Iron Co., Trenton, N. J.

## 913 IRON—Black Plates—

Aetna-Standard Iron & Steel Co., Bridgeport, Ohio.  
 AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Cumberland Steel & Tin Plate Works, Cumberland, Md.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Whitaker Iron Co., Wheeling, W. Va.

## 914 IRON—Black Plate Bars—

Aetna-Standard Iron & Steel Co., Bridgeport, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 915 IRON—Boiler Plates—

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Birmingham Rolling Mill Co., Birmingham, Ala.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Cleveland Rolling Mill Co., Cleveland, Ohio.  
 Globe Rolling Mill Iron & Steel Co., 163 W. Pearl St., Cincinnati.  
 Howe, Brown & Co. (Ltd.), Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**915 IRON—Boller Plates—Continued.**

Mahoning Valley Iron Co., Youngstown, Ohio.  
 Pottstown Iron Co., Pottstown, Pa.  
 Shoenberger Steel Co. (Inc.), Pittsburg, Pa.  
 Singer, Nimick & Co. (Inc.), Pittsburg, Pa.  
 Springfield Iron Co., Springfield, Ill.

**916 IRON—Bolt—Rod—**

Aetna-Standard Iron & Steel Co., Bridgeport, Ohio.  
 Hawkins Iron Works, R. F., Springfield, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New Haven Rolling Mill Co., New Haven, Conn.  
 Old Dominion Iron & Nail Works Co., Richmond, Va.  
 Portland Rolling Mills, Portland, Me.  
 Sternbergh & Son, J. H., Reading, Pa.

**A916 IRON—Bloom—**

Ewald Iron Co., St. Louis, Mo.

**917 IRON—Bridge—**

Birmingham Rolling Mill Co., Birmingham, Ala.  
 Chickasaw Iron Works, Memphis, Tenn.  
 Cornell, J. B. & J. M., 26th St. and 11th Ave., New York.  
 Edge Moor Bridge Works, Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Union Iron & Steel Co., Youngstown, Ohio.

**918 IRON—Bridge Plates—**

Birmingham Rolling Mill Co., Birmingham, Ala.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
 Pottstown Iron Co., Pottstown, Pa.

**919 IRON—Bridge Rods—**

Columbus Bolt Works, Columbus, Ohio.  
 Continental Bolt & Iron Works, 36 N. Franklin St., Chicago, Ill.  
 Diamond State Steel Co., Wilmington, Del.  
 Hawkins Iron Works, R. F., Springfield, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Old Dominion Iron & Nail Works Co., Richmond, Va.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
 Pittsburg Forge & Iron Co., Pittsburg, Pa.  
 Portland Rolling Mills, Portland, Me.

**920 IRON—Car Wheel—**

Elliot Car Co., Gadsden, Ala.  
 Ogden & Wallace, 577 Greenwich St., New York.  
 Shelby Iron Co., Shelby, Ala.  
 Woodstock Iron Works, Anniston, Ala.



## 921 IRON—Channel—

Cambria Steel Co., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Ewald Iron Co., St. Louis, Mo.  
 Globe Rolling Mill Iron & Steel Co., Cincinnati, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Pottsville Iron & Steel Co., Pottsville, Pa.

## 922 IRON—Charcoal—

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Ewald Iron Co., St. Louis.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

## 923 IRON—Corrugated—

Bergen Manufacturing Co., Canton, Ohio.  
 Berlin Iron Bridge Co., East Berlin, Conn.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Carroll-Porter Boiler & Tank Co., Pittsburg, Pa.  
 Cincinnati Corrugating Co., Piquette, Ohio.  
 Garry Iron & Steel Roofing Co., Cleveland, Ohio.  
 Holton Iron & Steel Roofing Co., New Lisbon, Ohio.  
 Hyndman Steel Roofing Co., 320 E. 2d St., Cincinnati, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McCullough Iron Co., Wilmington, Del.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Southern Iron Co., E. E., 932 N. 2d St., St. Louis, Mo.  
 Wheeling Corrugating Co., 81 Fulton St., New York.

## A923 IRON—E. I. C. Charcoal—

Ewald Iron Co., St. Louis, Mo.

## 924 IRON—Galvanized—

Abenroth & Root Manufacturing Co., 28 Cliff St., New York.  
 American Galvanizing & Tin Plate Co., Cincinnati, Ohio.  
 Apollo Iron & Steel Co., Pittsburg, Pa.  
 Cleveland Rolling Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Maypole Bros., 8 S. Canal St., Chicago, Ill.  
 McVoy & Co., John, 25 Michigan St., Chicago, Ill.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Wheeling Corrugating Co., Wheeling, W. Va.

## 925 IRON—Girders—See Bridges.

## A925 IRON—Hexagon Tenn. C. C. Bloom—

Ewald Iron Co., St. Louis, Mo.

## 926 IRON—Hoop—

Andrews Bros. Co., Youngstown, Ohio.  
 Clark Sons Co., William, Pittsburg, Pa.  
 Globe Rolling Mill Iron & Steel Co., Cincinnati, Ohio.

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926 IRON—Hoop—Continued.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lake Erie Iron Co., Cleveland, Ohio.  
 Livermore Foundry & Machine Co., Memphis, Tenn.  
 Union Iron & Steel Co., Youngstown, Ohio.

A926 IRON—Laurel Charcoal—

Ewald Iron Co., St. Louis, Mo.

927 IRON—L. T. and Z.—

Cambria Steel Co., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Ewald Iron Co., St. Louis, Mo.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
 Portage Iron Co. (Ltd.), Duncansville, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Trenton Iron Co., Trenton, N. J.

928 IRON—Lead Coated—

Ajax Lead Coating Co., Philadelphia, Pa.

929 IRON—Malleable—

Albany Malleable Iron Works, Albany, N. Y.  
 Bridgeport Malleable Iron Co., Bridgeport, Conn.  
 Dayton Malleable Iron Co., Dayton, Ohio.  
 Devlin & Co., Thomas, Lehigh Ave. and N. 3d St., Philadelphia.  
 Erie Malleable Iron Co. (Ltd.), Erie, Pa.  
 Flagg & Co., Stanley G., N. 19th and Penn. Ave., Philadelphia.  
 Lancaster Malleable Iron Works, Lancaster, N. Y.  
 Meriden Malleable Iron Co., Meriden, Conn.  
 Michigan Malleable Iron Co., Detroit, Mich.  
 Pratt & Letchworth Co., Buffalo, N. Y.  
 Southern Malleable Iron Works, Chattanooga, Tenn.  
 Springfield Malleable Iron Co., Springfield, Ohio.  
 Troy Malleable Iron Co., Troy, N. Y.  
 Western Malleable & Grey Iron Manufacturing Co., Milwaukee.

930 IRON—Merchant—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Harriman Rolling Mill, Harriman, Tenn.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Jackson & Woodin Manufacturing Co., Berwick, Pa.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.

## 930 IRON—Merchant—Continued.

Morris, Wheeler & Co., 1608 Market St., Philadelphia, Pa.  
 New Haven Rolling Mill Co., New Haven, Conn.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Ogden & Wallace, 577 Greenwich St., New York  
 Old Dominion Iron & Nail Works Co., Richmond, Va.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Troy Steel Co., Troy, N. Y.  
 Union Rolling Mill Co., Cleveland, Ohio.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 931 IRON—Norway—

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Rowland, William & Harvey (Inc.), Frankford, Philadelphia, Pa.

## 932 IRON—Nut Rods—

Aetna-Standard Iron & Steel Co., Bridgeport, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New Haven Rolling Mill Co., New Haven, Conn.  
 Old Dominion Iron & Nail Works Co., Richmond, Va.  
 Portland Rolling Mills, Portland, Me.  
 Sternbergh & Son, J. H., Reading, Pa.

## 933 IRON—Pig—

Aetna Coal & Iron Co., New York.  
 Andrews Bros. Co., Youngstown, Ohio.  
 Anniston Coal Co., Anniston, Ala.  
 Barnum-Richardson Co., Lime Rock, Conn.  
 Belfont Iron Works Co., Ironton, Ohio.  
 Bellaire Steel Co., Bellaire, Ohio.  
 Brown & Co. (Inc.), Pittsburg, Pa.  
 Burden Iron Co., Troy, N. Y.  
 Cahill Iron Works, Chattanooga, Tenn.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Central Iron & Steel Co., Brazil, Ind.  
 Cleveland Rolling Mill Co., Cleveland, Ohio.  
 Cooper, Hewitt & Co., 17 Burling Slip, New York.  
 Detroit Copper Mining Co. of Arizona, 11 Cliff St., New York.  
 Eagle Iron & Steel Co., Ironton, Ohio.  
 Globe Iron Co., Jackson, Ohio.  
 Globe Rolling Mill Iron & Steel Co., Cincinnati, Ohio.  
 Illinois Steel Co., The Rookery, Chicago, Ill.  
 Kelly Iron & Nail Co., Ironton, Ohio.  
 Lincoln Iron Works, Boonton, N. J.  
 Mahoning Valley Iron Co., Youngstown, Ohio.  
 Missouri Furnace Co., St. Louis, Mo.  
 Norton Iron Works, Ashland, Ky.  
 Penn Iron & Coal Co., Canal Dover, Ohio.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pittsburg Forge & Iron Co., Pittsburg, Pa.  
 Republic Iron & Steel Co., Chicago, Ill.

933 IRON—Pig—Continued.

Richmond Coal Co., Chattanooga, Tenn.  
 Riverside Iron Works, Wheeling, W. Va.  
 Royal Coal & Coke Co., Knoxville, Tenn.  
 Sloss Iron & Steel Co., Birmingham, Ala.  
 Southern Mining Co., Atlanta, Ga.  
 Standard Coal & Coke Co., Knoxville, Tenn.  
 Tennessee Coal Co., Knoxville, Tenn.  
 Thomas Iron Co., Easton, Pa.  
 Troy Steel Co., Troy, N. Y.  
 Wabash Iron Co., Terre Haute, Ind.

934 IRON—Plates—

Bessemer Rolling Mill Co., Birmingham, Ala.  
 Birmingham Rolling Mill Co., Birmingham, Ala.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Ewald Iron Co., St. Louis, Mo.  
 Glasgow Iron Co., Pottstown, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Pottstown Iron Co., Pottstown, Pa.  
 Pottsville Iron & Steel Co., Pottsville, Pa.  
 Reading Iron Co., Reading, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Seidel & Hastings Co., Wilmington, Del.  
 Springfield Iron Co., Springfield, Ill.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis, See ad. page A 5.

935 IRON—Plate Girders—See Bridges.

936 IRON—Refined—

Diamond State Steel Co., Wilmington, Del.  
 Ewald Iron Co., St. Louis, Mo.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Old Dominion Iron & Nail Works Co., Richmond, Va.  
 Portland Rolling Mills, Portland, Me.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Sternburgh & Son, J. H., Reading, Pa.

A936 IRON—Round Edge Tenn. C. C. Bloom—

Ewald Iron Co., St. Louis, Mo.

937. IRON—Sheet—

Aetna-Standard Iron & Steel Co., Bridgeport, Ohio.  
 Andrews Bros. Co., Youngstown, Ohio.  
 Apollo Iron & Steel Co., Pittsburg, Pa.  
 Bessemer Rolling Mill Co., Birmingham, Ala.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Buhl Sons Co., Detroit, Mich.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Chattanooga Steel Roofing Co., Chattanooga, Tenn.  
 Cleveland Rolling Mill Co., Cleveland, Ohio.  
 Crerar, Adams & Co., Chicago, Ill.

## 937 IRON—Sheet—Continued.

Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Ewald Iron Co., St. Louis, Mo.  
 Globe Rolling Mill Iron & Steel Co., Cincinnati, Ohio.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 St. Louis Stamping Co., St. Louis, Mo.  
 THOMPSON, C. A., St. Louis, Mo. See ad. page A 5.  
 Wheeling Corrugating Co., 81 Fulton St., New York.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 938 IRON—Sheet—Black—

Aetna-Standard Iron & Steel Co., Bridgeport, Ohio.  
 Cincinnati Corrugating Co., Piqua, Ohio.  
 Cleveland Rolling Mill Co., Cleveland, Ohio.  
 Gummey, McFarland & Co., 151 N. 10th St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Republic Iron & Steel Co., Chicago, Ill.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

## 939 IRON—Sheet—Galvanized—

Aetna-Standard Iron & Steel Co., Bridgeport, Ohio.  
 Britton Rolling Mill Co., Cleveland, Ohio.  
 Buhl Sons Co., Detroit, Mich.  
 Cincinnati Corrugating Co., Piqua, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McVoy & Co., John, 25 Michigan St., Chicago, Ill.  
 Republic Iron & Steel Co., Chicago, Ill.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Wheeling Corrugating Co., 81 Fulton St., New York.

## 940 IRON—Sheet—Planished—

American Sheet Steel Co., Battery Park Bldg., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Wood Co., W., Dewees, Pittsburg, Pa.

## 941 IRON—Stay Bolt—

Ewald Iron Co., St. Louis, Mo.  
 Falls Hollow Staybolt Co., Cuyahoga Falls, Ohio.  
 Fuller Bros. & Co., 139 Greenwich St., New York.  
 Globe Rolling Mill Iron & Steel Co., Cincinnati, Ohio  
 Jones & Co., B. M., 81 Milk St., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Old Dominion Iron & Nail Works Co., Richmond, Va.  
 Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.  
 Union Iron & Steel Co., Youngstown, Ohio.

942 IRON—Structural—See Iron Buildings.

943 IRON—Tank Beams—

Dimond, Thomas, 128 W. 33d St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

944 IRON—Tank Plates—

Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
Ewald Iron Co., St. Louis, Mo.  
Globe Rolling Mill Iron & Steel Co., Cincinnati, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Otis Steel Co. (Ltd.), Cleveland, Ohio.  
Pottstown Iron Co., Pottstown, Pa.  
Republican Iron Works, Pittsburg, Pa.  
Springfield Iron Co., Springfield, Ill.

945 IRON—Tennessee Bloom—

Ewald Iron Co., St. Louis, Mo.

946 IRON—Wire Rods—

AMERICAN STEEL & WIRE CO., The Rookery, Chicago, Ill.  
See ad. inside front cover.  
American Wire Nail Co., Anderson, Ind.  
H. P. Nail Co., Cleveland, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
New Haven Rolling Mill Co., New Haven, Conn.  
Pittsburg Wire Co., Pittsburg, Pa.  
Portage Iron Co. (Ltd.), Duncansville, Pa.  
St. Louis Wire & Iron Co., St. Louis, Mo.  
Washburn & Moen Manufacturing Co., Worcester, Mass.

947 IRONWORK—Architectural—

Addyston Pipe & Steel Co., Walnut St., Cincinnati, Ohio.  
Bartlett, Hayward & Co., Baltimore, Md.  
Berlin Iron Bridge Co., E. Berlin, Conn.  
Champion Iron Co., Kenton, Ohio.  
Chattanooga Steel Roofing Co., Chattanooga, Tenn.  
Chickasaw Iron Works, Memphis, Tenn.  
Davenport Foundry & Machine Co., Davenport, Iowa.  
Donovan Wire & Iron Works, Toledo, Ohio.  
Emporia Foundry & Machine Works, Emporia, Kas.  
Ft. Scott Foundry & Machine Co., Ft. Scott, Kas.  
Gillette-Herzog Manufacturing Co., Minneapolis, Minn.  
Hecla Iron Works, N. 11th and Berry Sts., Brooklyn, N. Y.  
Hendy Machine Works, Joshua, 39 Tremont St., San Francisco.  
Howard & Morse, 45 Fulton, St., New York.  
Kehoe & Co., William, Savannah, Ga.  
Lamb, J. & R., 59 Carmine St., New York.  
Lombard Iron Works & Supply Co., Augusta, Ga.  
Mahoney, Michael, Troy, N. Y.  
Novelty Iron Works, 3120 Market St., Philadelphia, Pa.  
Passaic Rolling Mill Co., Paterson, N. J.  
Paxton & Vierling Iron Works, Omaha, Neb.

## 947 IRONWORK—Architectural—Continued.

Pittsburg Bridge Co., Pittsburg, Pa.  
 Rogers Iron Co., Springfield, Ohio.  
 SCAIFE & SONS, WM. B., Pittsburg, Pa. See ad. page A 8.  
 Southern Engine & Boiler Works, Jackson, Tenn.  
 Variety Iron Works, York, Pa.  
 Vulcan Iron Works, Wilkesbarre, Pa.

## 948 JACKS—Car—

Baird Machinery Co., U., 1123 Water St., Pittsburg, Pa.  
 BOYER & RADFORD, Dayton, Ohio. See ad. page A 3.  
 Buda Foundry & Manufacturing Co., Harvey, Ill.  
 Chapman Jack Co., Cleveland, Ohio.  
 Duff Manufacturing Co., The, Allegheny, Pa.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Joyce-Cridland Co., Dayton, Ohio.  
 Justice & Co., Philip S., 14 N. 5th St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Norton, A. O., 167 Oliver St., Boston, Mass.  
 Pearson Jack Co., Boston, Mass.  
 Pettibone, Mulliken & Co. (Inc.), Marquette Bldg., Chicago, Ill.  
 Q. & C. Co., 700 Western Union Bldg., Chicago, Ill.  
 Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.  
 Springfield Foundry Co., Springfield, Mass.  
 Stillwell-Blerce & Smith-Valle Co., Dayton, Ohio.

## 949 JACKS—Car—Pneumatic—

Baird Machinery Co., U., Pittsburg, Pa.  
 CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago,  
 Ill. See ad. page B 2.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 950 JACKS—Car and Locomotive—Pneumatic—

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago,  
 Ill. See ad. page B 2.  
 Garry Iron & Steel Roofing Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Standard Pneumatic Tool Co., Marquette Bldg., Chicago, Ill.

## 951 JACKS—Carrying—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Norton, A. O., 167 Oliver St., Boston, Mass.  
 Pearson Jack Co., Boston, Mass.

## 952 JACKS—Geared Lever—

Baird Machinery Co., U., Pittsburg, Pa.  
 Joyce-Cridland Co., The, Dayton, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 953 JACKS—Hydraulic—

Baird Machinery Co., U., Pittsburg, Pa.  
 Brill Co., J. G., 62d and Woodland Ave., Philadelphia, Pa.  
 Currier & Sons, Cyrus, Newark, N. J.  
 Dudgeon, Richard, 24 Columbia St., New York.

953 JACKS—Hydraulic—Continued.

Forsyth Machine Co., S. C., Manchester, N. H.  
 Joyce-Cridland Co., Dayton, Ohio.  
 Justice & Co., Philip S., 14 N. 5th St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Walker Co., Cleveland, Ohio.  
 Watson-Stillman Co., 204 E. 43d St., New York.

954 JACKS—Lever—

Baird Machinery Co., U., Pittsburg, Pa.  
 Bagley & Sewell Co., Watertown, N. Y.  
 BOYER & RADFORD, Dayton, Ohio. See ad. page A 3.  
 Dayton Malleable Iron Co., Dayton, Ohio.  
 Duff Manufacturing Co., Allegheny, Pa.  
 Joyce-Cridland Co., Dayton, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Norton, A. O., 167 Oliver St., Boston, Mass.  
 Railway Speed Recorder Co., Kent, Ohio.  
 Taylor & Co. (Inc.), 429 Driggs Ave., Brooklyn, N. Y.  
 Watson-Stillman Co., 204 E. 43d St., New York.  
 Weller & Barth Manufacturing Co., Milwaukee, Wis.

956 JACKS—Power—

Appleton Manufacturing Co., Batavia, Ill.  
 Duff Manufacturing Co., Allegheny, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 U. S. WIND ENGINE & PUMP CO., Batavia, Ill. See ad. page A 2.  
 Verona Tool Works, Pittsburg, Pa.

957 JACKS—Pulling—

Joyce-Cridland Co., Dayton, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Watson-Stillman Co., 204 E. 43d St., New York.

958 JACKS—Pumping—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Otto Gas Engine Works, Philadelphia, Pa.

959 JACKS—Ratchet—

Illinois Iron & Bolt Co., Carpentersville, Ill.  
 Joyce-Cridland Co., Dayton, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Norton, A. O., 167 Oliver St., Boston, Mass.  
 Pearson Jack Co., Boston, Mass.

960 JACKS—Screw—

Baker Manufacturing Co., Evansville, Wis.  
 Belleville Pump & Slein Works, Belleville, Ill.  
 BOYER & RADFORD, Dayton, Ohio. See ad. page A 3.  
 Chapman Jack Co., The, Cleveland, Ohio.  
 Contractors' Plant Manufacturing Co., Buffalo, N. Y.  
 Dickson Manufacturing Co., Scranton, Pa.



## 960 JACKS—Screw—Continued.

Duff Manufacturing Co., Allegheny, Pa.  
 Furbush & Son Machine Co., M. A., 224 Market St., Philadelphia.  
 Gould Manufacturing Co., Seneca Falls, N. Y.  
 Joyce-Cridland Co., Dayton, Ohio.  
 Justice & Co., Philip S., 14 N. 5th St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Norton, A. O., 167 Oliver St., Boston, Mass.  
 Pearson Jack Co., Boston, Mass.  
 Rumsey & Co. (Ltd.), Seneca Falls, N. Y.  
 Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.  
 Stearns & Co., E. C., Syracuse, N. Y.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.  
 Watson-Stillman Co., 204 E. 43d St., New York.

## 962 JACKS—Screw—Traversing—

Joyce-Cridland Co., Dayton, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Norton, A. O., 167 Oliver St., Boston, Mass.

## 963 JACKS—Track—

BOYER & RADFORD, Dayton, Ohio. See ad. page A 3.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Buda Foundry & Manufacturing Co., Harvey, Ill.  
 Duff Manufacturing Co., Allegheny, Pa.  
 ELLIOT FROG & SWITCH CO., E. St. Louis. See ad. page A 5.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Illinois Iron & Bolt Co., Carpentersville, Ill.  
 Joyce-Cridland Co., Dayton, Ohio.  
 Justice & Co., Philip S., 14 N. 5th St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Manning, Maxwell & Moore, 85 Liberty St., New York.  
 MORDEN FROG & CROSSING WORKS, The Rookery, Chicago, Ill. See ad. page A 5.  
 Norton, A. O., 167 Oliver St., Boston, Mass.  
 Pettibone, Mulliken & Co., Marquette Bldg., Chicago, Ill.  
 Q. & C. Co., Chicago, Ill.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.  
 Templeton, Walter B., 521 The Rookery, Chicago, Ill.  
 Verona Tool Works, Pittsburg, Pa.  
 Weller & Barth Manufacturing Co., Milwaukee, Wis.

## 964 JACKS—Wrecking—

BOYER & RADFORD, Dayton, Ohio. See ad. page A 3.  
 Joyce-Cridland Co., Dayton, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pearson Jack Co., 64 Federal St., Boston, Mass.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.

## 965 JAPAN—

Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.

966 JAPAN—Coach and Freight Car—

Anglo-American Varnish Co., 53 Johnson St., Newark, N. J.  
 Detroit White Lead Works, Detroit, Mich.  
 Devoe & Reynolds Co., F. W., New York and Chicago.  
 Fuller & Co., W P., Pine and Front Sts., San Francisco, Cal.  
 Hampdon Paint & Chemical Co., Springfield, Mass.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 Lowe Bros. Co., Dayton, Ohio.  
 McWilliams (Ltd.), R., New Orleans, La.  
 Moore & Co., Benjamin, 262 Water St., Brooklyn, N. Y.  
 Mound City Paint & Color Co., St. Louis, Mo.

968 JARS—Battery—

Peru Electric Manufacturing Co., Peru, Ind.

969 JAWS—Malleable Brake—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Simpson & Collier, Old Colony Bldg., Chicago, Ill.

970 JOINTS—Bridge Rail—

Fisher Rail Joint Works, Trenton, N. J.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

971 JOINTS—Flexible Air—

Davis Co., The John, Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Moran Flexible Steam Joint Co., Louisville, Ky.  
 TOPPAN CO., THE J. S., Great Northern Bldg., Chicago, Ill.  
 See ad. page A 8.

972 JOINTS—Flexible Metallic—

Davis Co., The John, 51 Michigan St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 TOPPAN CO., THE J. S., Great Northern Bldg., Chicago, Ill.  
 See ad. page A 8.

973 JOINTS—Flexible Steam—

Davis Co., The John, Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Moran Flexible Steam Joint Co., Louisville, Ky.  
 TOPPAN CO., THE J. S., Great Northern Bldg., Chicago, Ill.  
 See ad. page A 8.

974 JOINTS—Lock Nut—

Cambria Steel Co., Harrison Bldg., Philadelphia, Pa.

975 JOINTS—Rail—

AMERICAN STEEL & WIRE CO., Chicago, Ill. See ad. inside front cover.  
 American Washer & Manufacturing Co., The, Chicago, Ill.  
 Atlas Railway Supply Co., 1654 Monadnock Block, Chicago, Ill.  
 Bonzano Rail Joint Co., 22 S. 15th St., Philadelphia, Pa.  
 Cambria Steel Co., Harrison Bldg., Philadelphia, Pa.  
 Chisholm & Moore Manufacturing Co., The, Cleveland, Ohio.  
 Continuous Rail Joint Co. of America, 906 Lawyers Bldg., New-  
 ark, N. J.

975 JOINTS—Rail—Continued.

Diamond State Steel Co., Wilmington, Del.  
 Fisher Rail Joint Works, Trenton, N. J.  
 Illinois Steel Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDuff, H. H., 521 Monadnock Block, Chicago, Ill.  
 National Switch & Signal Co., Easton, Pa.  
 New York Rail Insulation & Equipment Co., 200 Market St., New-  
 ark, N. J.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Standard Coupler Co., 160 Broadway, New York.  
 Weber Railway Joint Mfg. Co., The, 71 Broadway, New York.  
 Williams Track Joint Co., 1002 Monadnock Block, Chicago, Ill.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

976 JOURNAL BOX LIFTER—

Railroad Supply Co., The, Bedford Bldg., Chicago, Ill.

977 JOURNAL COOLER—

Cook Cooler Co. (Ltd.), Flint, Mich.

978 KEYS—Brake Shoe—

Cleveland City Forge & Iron Co., Cleveland, Ohio.  
 Q. & O. Co., 700 Western Union Bldg., Chicago, Ill.

979 KEYS—Machine—

Billings & Spencer Co., Hartford, Conn.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Hoopes & Townsend, 1330 Buttonwood St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Meyer & Co., Throopsville, N. Y.  
 Morton Manufacturing Co., Muskegon Heights, Mich.  
 Standard Tool Co., Cleveland, Ohio.  
 Whitman & Barnes Manufacturing Co., Akron, Ohio.

980 KEYS—Spring—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Cramer, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 47 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Jenckes Manufacturing Co., E., Pawtucket, R. I.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 Meyer & Co., Throopsville, N. Y.  
 New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Standard Tool Co., The, Cleveland, Ohio.  
 Whitman & Barnes Manufacturing Co., Akron, Ohio.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

- 981 KEYS—Typewriter Cushion—  
Typewriter Cushion Key Co., 297 Washington St., Newark, N. J.
- 982 KILNS—Lumber, Dry—  
Buffalo Forge Co., Buffalo, N. Y.
- 983 KNIVES—Machine—  
CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
Greenlee Bros. & Co., 225 W. 12th St., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 984 KNIVES—Painters'—  
Lamson & Goodnow Manufacturing Co., Shelburne Falls, Mass.  
Landers, Frary & Clark, New Britain, Conn.  
Relley Bros., 322 W. 41st St., New York.  
WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.
- 985 KNIVES—Putty—  
Goodell Co., Antrim, N. H.  
Landers, Frary & Clark, New Britain, Conn.  
Meriden Cutlery Co., Meriden, Conn.  
Northampton Cutlery Co., Northampton, Conn.  
WOLFE, WALKER & CO., Pittsburg, Pa. See ad. page A 3.
- 986 KNUCKLES—Steel—  
Sargent Co., The, 675 Old Colony Bldg., Chicago, Ill.  
Standard Coupler Co., 160 Broadway, New York.
- 987 LACING—Belt—  
Brown Bros. & Co., Providence, R. I.  
Dempwolf, Charles, Paterson, N. J.  
Herkner, H. F., 281 Front St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
New York Leather Belting Co., 8 Ferry St., New York.  
Page Belting Co., Concord, N. H.  
Schleren & Co., Charles A., 45 Ferry St., New York.
- 988 LACING—Composition Wire Belt—  
Hayden & Co., J. M., Grand Rapids, Mich.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Malin & Co., Cleveland, Ohio.
- 989 LACING—Metallic Belt—  
Bristol Co., Waterbury, Conn.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Malin & Co., Cleveland, Ohio.
- 990 LACING—Rawhide Belt—  
Burgess & Son, A., Providence, R. I.  
Chicago Rawhide Manufacturing Co., 75 E. Ohio St., Chicago, Ill.  
Jewell Belting Co., Hartford, Conn.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
New York Leather Belting Co., 8 Ferry St., New York.  
Weatherhead, Thompson & Co., Pawtucket, R. I.

991 LACING—Tipped Belt—

Fletcher Manufacturing Co., Providence, R. I.  
Jewell Belting Co., Hartford, Conn.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Schieren & Co., Charles A., 45 Ferry St., New York.

992 LADDERS—Extension—

Davenport Ladder Co., Davenport, Iowa.  
Glidden, W. L., Atlantic Ave., Brooklyn, N. Y.  
Indiana Ladder Co., Indiana, Pa.  
Racine Fire Engine Co. (Ltd.), Racine, Wis.  
Udell Woodenware Works, North Indianapolis, Ind.

993 LADDERS—Fire—

Cable Ladder & Fire Escape Co., Fairfield, Me.  
Davenport Ladder Co., Davenport, Iowa.  
Jackson Architectural Iron Works, 315 E. 28th St., New York.  
Racine Fire Engine Co. (Ltd.), Racine, Wis.

994 LADDERS—Step—

Atlas Manufacturing Co., Danville, Pa.  
Bostwick-Braun Co., The, Toledo, Ohio.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
California Barrel Co., San Francisco, Cal.  
Cooper & McKee, 119 Gwinnet St., Brooklyn, N. Y.  
Crerar Adams & Co., Chicago, Ill.  
Davenport Ladder Co., Davenport, Iowa.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Glidden, W. L., Atlantic Ave., Brooklyn, N. Y.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
I. X. L. & Goshen Pump Co., Goshen, Ind.  
James & Co. (Inc.), Chattanooga, Tenn.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
Mace & Co., L. H., 111 E. Houston St., New York.  
New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
Paris Manufacturing Co., South Paris, Me.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Schomer, Henry, 301 S. Canal St., Chicago, Ill.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
Udell Woodenware Works, North Indianapolis, Ind.  
Whitehurst & Co., R. W., Norfolk, Va.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

995 LAGGING—Locomotive—

Carey Manufacturing Co., The Philip, 415 E. Pearl St., Cincinnati.  
Franklin Manufacturing Co., Franklin, Pa.  
Johns Manufacturing Co., H. W., 100 William St., New York.  
Keasbey & Mattison Co., Ambler, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Scully Steel & Iron Co., 130 Fulton St., Chicago, Ill.  
Watson Co., H. F., Erie, Pa.

**996 LAMBREQUINS—Car—**

Chauncey Tapestry Co., Chauncey, N. Y.  
Lewis, Robert, Bridesburg, Philadelphia, Pa.  
McKay Curtain Co., Wilmington, Del.

**997 LAMPS—Arc—**

Baechtold & Parker Elec. Co., 79 Wash. St., Brooklyn, N. Y.  
Central Electric Co., 264 5th Ave., Chicago, Ill.  
Fort Wayne Electric Corporation, Ft. Wayne, Ind.  
General Electric Co., Schenectady, N. Y.  
Lea Manufacturing Co., Elwood, Ind.  
Sterling Arc Lamp Co., 222 W. 26th St., New York.  
Western Electric Co., 242 S. Jefferson St., Chicago, Ill.  
Westinghouse Electric & Manufacturing Co., Pittsburg, Pa.

**998 LAMPS—Bracket—**

Adams & Westlake Co., Chicago, Ill.  
Bradley & Hubbard Manufacturing Co., Meriden, Conn.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Dayton Manufacturing Co., Dayton, Ohio.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel & Railway Supply Co., Louisville, Ky.  
Manhattan Brass Co., 338 E. 28th St., New York.  
Meyrose Lamp & Manufacturing Co., St. Louis, Mo.  
New Orleans Railway & Mill Supply Co. (Ltd.), New Orleans, La.  
Pittsburg Brass Co. (Ltd.), Pittsburg, Pa.  
Rochester Lamp Co., New York.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**999 LAMPS—Caboose and Tail—**

Adams & Westlake Co., N. Franklin St., Chicago, Ill.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Dietz Co., R. E., 60 Laight St., New York.  
Dressel Railway Lamp Works, 3876 Park Ave., New York.  
Ham Manufacturing Co., C. T., Rochester, N. Y.  
Larter, Elcox & Co., 21 Maiden Lane, New York.  
Steam Gauge and Lantern Co., Syracuse, N. Y.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**1000 LAMPS—Car—**

Adams & Westlake Co., N. Franklin St., Chicago, Ill.  
Bridgeport Brass Co., Bridgeport, Conn.  
Brill Co., J. G., Woodland Ave. and 62d St., Philadelphia, Pa.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Dayton Manufacturing Co., Dayton, Ohio.  
Dietz Co., R. E., 60 Laight St., New York.  
Dressel Railway Lamp Works, 3876 Park Ave., New York.  
Hicks & Schmidt, 848 Washington St., New York.  
Howard & Co., James L., Hartford, Conn.

1000 LAMPS—Car—Continued.

Railroad Signal Lamp and Lantern Co., 447 W. 53d St., New York.  
 Rochester Headlight Works, Rochester, N. Y.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Smith, Thomas T., 352 Pearl St., New York.  
 Steam Gauge and Lantern Co., Syracuse, N. Y.

1001 LAMPS—Car Inspectors'—

Dietz Co., R. E., 60 Laight St., New York.

1002 LAMPS—Engine—

Buck Manufacturing Co., M. M., St. Louis, Mo.

1003 LAMPS—Engineers' Hand—

Buck Manufacturing Co., M. M., St. Louis, Mo.

1004 LAMPS—Incandescent—

Bernard Co., E. G., Troy, N. Y.  
 Bryan-Marsh Co., 136 Liberty St., New York.  
 Buckeye Electric Co., Cleveland, Ohio.  
 Bunnell & Co., J. H., 76 Cortlandt St., New York.  
 Central Electric Co., 264 5th Ave., Chicago, Ill.  
 Columbia Incandescent Lamp Co., St. Louis, Mo.  
 Edison, Thomas A., Jr., 27 William St., New York.  
 Fort Wayne Electric Corporation, Ft. Wayne, Ind.  
 Fort Wayne Lamp Co., Ft. Wayne, Ind.  
 General Electric Co., Schenectady, N. Y.  
 Manhattan Brass Co., 338 E. 28th St., New York.  
 Shelby Electric Co., Shelby, Ohio.  
 Western Electric Co., 242 S. Jefferson St., Chicago, Ill.  
 Westinghouse Electric & Manufacturing Co., Pittsburg, Pa.

1005 LAMPS—Locomotive Cab—

Dietz Co., R. E., 60 Laight St., New York.  
 Dressel Railway Lamp Works, 3876 Park Ave., New York.  
 Ham Manufacturing Co., C. T., Rochester, N. Y.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.

1006 LAMPS—Signal—

Adams & Westlake Co., N. Franklin St., Chicago, Ill.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Dietz Co., R. E., 60 Laight St., New York.  
 Dressel Railway Lamp Works, The, 3876 Park Ave., New York.  
 Gray, Peter, 12 Marshall St., Boston, Mass.  
 Ham Manufacturing Co., C. T., Rochester, N. Y.  
 Railroad Signal Lamp and Lantern Co., 447 W. 53d St., New York.  
 Smith, Thomas T., 352 Pearl St., New York.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1007 LAMPS—Station—

Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Buhl Stamping Co., Detroit, Mich.  
 Dietz Co., R. E., 60 Laight St., New York.  
 Ham Manufacturing Co., C. T., Rochester, N. Y.  
 Rochester Lamp Co., New York.

**1008 LAMPS—Street—**

Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Dietz Co., R. E., 60 Laight St., New York.  
 Dressel Railway Lamp Works, 3876 Park Ave., New York.  
 Fiske, J. W., 39 Park Place, New York.  
 Ham Manufacturing Co., C. T., Rochester, N. Y.  
 Pennsylvania Globe Gas Light Co., 248 N. Broad St., Philadelphia.  
 Rochester Lamp Co., New York.

**1009 LAMP FOUNTS—Glass—**

Adams & Westlake Co., Chicago, Ill.  
 American Lamp and Brass Co., Trenton, N. J.  
 Consolidated Lamp and Glass Co., Coraopolis, Pa.  
 Gillinder & Sons, 135 Oxford St., Philadelphia, Pa.  
 Mount Washington Glass Co., New Bedford, Mass.  
 National Brass and Iron Works, Reading, Pa.

**1010 LAMP FOUNTS—Metal—**

Adams & Westlake Co., Chicago, Ill.  
 American Brass Co., Waterbury, Conn.  
 Bradley & Hubbard Manufacturing Co., Meriden, Conn.  
 Bridgeport Brass Co., Bridgeport, Conn.  
 Bristol Brass and Clock Co., Bristol, Conn.  
 Dayton Manufacturing Co., Dayton, Ohio.  
 Holmes, Booth & Haydens, Waterbury, Conn.

**1011 LAMP PARTS AND TRIMMINGS—**

Adams & Westlake Co., Chicago, Ill.  
 American Brass Co., Waterbury, Conn.  
 Dayton Manufacturing Co., Dayton, Ohio.  
 National Brass and Iron Works, Reading, Pa.  
 Pittsburg Brass Co., Pittsburg, Pa.  
 Pittsburg Lamp and Brass Co., foot of Locust St., Allegheny, Pa.

**1012 LANTERNS—Railway—**

Adams & Westlake Co., Chicago, Ill.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dietz Co., R. E., 60 Laight St., New York.  
 Dressel Railway Lamp Works, 3876 Park Ave., New York.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Gray, Peter, 12 Marshall St., Boston, Mass.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Ham Manufacturing Co., C. T., Rochester, N. Y.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 Meyrose Lamp and Manufacturing Co., F., St. Louis, Mo.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.



1012 LANTERNS—Railway—Continued.

Ohio Lantern Co., Tiffin, Ohio.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Railroad Signal Lamp and Lantern Co., 447 W. 53d St., New York.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Smith, Thomas T., 350 Pearl St., New York  
 Tufts Meter Co., Nathaniel, 8 Medford St., Boston, Mass.  
 Washington Glass Manufacturing Co., Washington, Pa.  
 Wheeler Reflector Co., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1013 LANTERNS—Ship—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lovell & Co., F. H., 118 John St., New York.  
 Tufts Meter Co., Nathaniel, 8 Medford St., Boston, Mass.

1014 LATHE ATTACHMENTS—Centering—

Baird Machinery Co., U., Pittsburg, Pa.  
 Dwight Slate Machine Co., Hartford, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1015 LATHE ATTACHMENTS—Chucks—

Baird Machinery Co., U., Pittsburg, Pa.  
 Cushman Chuck Co., Hartford, Conn.  
 Garvin Machine Co., Spring and Varick Sts., New York.  
 Hoggson & Pettis Manufacturing Co., New Haven, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 Norton Emery Wheel Co., Worcester, Mass.  
 Pratt & Whitney Co., Hartford, Conn.  
 Putnam Machine Co., Fitchburg, Mass.  
 Standard Tool Co., Cleveland, Ohio.  
 Trump Bros. Machine Co., Beech St., Wilmington, Del.  
 Warner & Swasey, Cleveland, Ohio.  
 Whiton Machine Co., D. E., New London, Conn.

1016 LATHE ATTACHMENTS—Chucks—Car Wheel—

Baird Machinery Co., U., Pittsburg, Pa.  
 Hoggson & Pettis Manufacturing Co., New Haven, Conn.  
 Horton & Son Co., E., Windsor Locks, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Skinner Chuck Co., New Britain, Conn.  
 Westcott Chuck Co., Oneida, N. Y.

1017 LATHE ATTACHMENTS—Chuck Drill Holders—

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Le Count, William G., South Norwalk, Conn.  
 Wells Bros. & Co., Greenfield, Mass.

1018 LATHE ATTACHMENTS—Chucking Reamer Holders—

Baird Machinery Co., U., Pittsburg, Pa.  
 Billings & Spencer Co., Hartford, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**1019 LATHE ATTACHMENTS—Combined Chucks—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Cushman Chuck Co., Hartford, Conn.  
 Gould & Eberhardt, Newark, N. J.  
 Hoggson & Pettis Manufacturing Co., New Haven, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Putnam Machine Co., Fitchburg, Mass.  
 Skinner Chuck Co., New Britain, Conn.  
 Westcott Chuck Co., Oneida, N. Y.

**1020 LATHE ATTACHMENTS—Die Heads—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Geometric Drill Co., Westville, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**1021 LATHE ATTACHMENTS—Die Holders—**

Card Manufacturing Co., S. W., Mansfield, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**1022 LATHE ATTACHMENTS—Dogs—**

Armstrong Manufacturing Co., Bridgeport, Conn.  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Bonney Vise and Tool Works, 1315 Chestnut St., Philadelphia, Pa.  
 Chester Steel Castings Co., 407 Library St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pond Machine Tool Co., Plainfield, N. J.  
 Williams & Co., J. H., 9 Richard St., Brooklyn, N. Y.

**1023 LATHE ATTACHMENTS—Drill Chucks—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Cushman Chuck Co., Hartford, Conn.  
 Garvin Machine Co., Spring and Varick Sts., New York.  
 Gould & Eberhardt, Newark, N. J.  
 Horton & Son Co., E. Windsor Locks, N. J.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 Putnam Machine Co., Fitchburg, Mass.  
 Standard Tool Co., Cleveland, Ohio.  
 Westcott Chuck Co., Oneida, N. Y.

**1024 LATHE ATTACHMENTS—Eccentric Chucks—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Cushman Chuck Co., Hartford, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Putnam Machine Co., Fitchburg, Mass.  
 Westcott Chuck Co., Oneida, N. Y.

**1025 LATHE ATTACHMENTS—Face Plate Jaws—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Cushman Chuck Co., Hartford, Conn.  
 Garvin Machine Co., Spring and Varick Sts., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Skinner Chuck Co., New Britain, Conn.

- 1026 LATHE ATTACHMENTS—Fittings—  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Chase, Edward O., Newark, N. J.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 1027 LATHE ATTACHMENTS—Grinding—  
 Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Norton Emery Wheel Co., Worcester, Mass.
- 1028 LATHE ATTACHMENTS—Independent Jawed Chucks—  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Cushman Chuck Co., Hartford, Conn.  
 Horton & Son Co., Windsor Locks, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Putnam Machine Co., Fitchburg, Mass.  
 Westcott Chuck Co., Oneida, N. Y.
- 1029 LATHE ATTACHMENTS—Mandrels—  
 Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Nicholson & Co., W. H., Wilkesbarre, Pa.
- 1030 LATHE ATTACHMENTS—Pipe Threading—  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Curtis & Curtis, Bridgeport, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 1031 LATHE ATTACHMENTS—Self-Centering Chucks—  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Cushman Chuck Co., Hartford, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 Westcott Chuck Co., Oneida, N. Y.  
 Whiton Machine Co., D. E., New London, Conn.
- 1032 LATHE ATTACHMENTS—Shafting Rests—  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Draper Machine Tool Co., Worcester, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New Haven Manufacturing Co., New Haven, Conn.
- 1033 LATHE ATTACHMENTS—Shaft Straightening—  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Betts Machine Co., Wilmington, Del.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.
- 1034 LATHE ATTACHMENTS—Shaft Turning—  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lodge & Shipley Machine Tool Co., 6th St., Cincinnati, Ohio.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Putnam Machine Co., Fitchburg, Mass.

**1035 LATHE ATTACHMENTS—Slide Rests—**

American Tool and Machine Co., 109 Beach St., Boston, Mass.  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Cleveland Machine Works, Worcester, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lodge & Shipley Machine Tool Co., 6th St., Cincinnati, Ohio.  
 Oliver, W. W., 1483 Niagara St., Buffalo, N. Y.

**1036 LATHE ATTACHMENTS—Taper Turning—**

Fitchburg Machine Works, Fitchburg, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lodge & Shipley Machine Tool Co., 6th St., Cincinnati, Ohio.  
 Pratt & Whitney Co., Hartford, Conn.

**1037 LATHE ATTACHMENTS—Turret Lathe Chucks—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Cushman Chuck Co., Hartford, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Skinner Chuck Co., New Britain, Conn.  
 Westcott Chuck Co., Oneida, N. Y.

**1038 LATHE ATTACHMENTS—Universal Chucks—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Cushman Chuck Co., Hartford, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Putnam Machine Co., Fitchburg, Mass.  
 Westcott Chuck Co., Oneida, N. Y.

**1039 LATHE TOOLS—**

Anderson & Sons, William H., Detroit, Mich.  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Billings & Spencer Co., Hartford, Conn.  
 Blaisdell & Co., P., Worcester, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McFadden Co., 722 Arch St., Philadelphia, Pa.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 Pratt & Whitney Co., Hartford, Conn.

**1040 LEAD—**

Baker & Adamson Chemical Co., Easton, Pa.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Chadwick Lead Works, Boston, Mass.  
 Colorado Smelting Co., Pueblo, Col.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sanson St., Philadelphia, Pa.  
 Germania Lead Works, Salt Lake City, Utah.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.

## 1040 LEAD—Continued.

New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Tatham & Bros., 82 Beekman St., New York.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 1041 LEAD—Pig—

Blatchford & Co., E. W., 70 N. Clinton St., Chicago, Ill.  
 Colwell Lead Co., 63 Center St., New York.  
 Con. Kansas City Smelting and Refining Co., Argentine, Kas.  
 Germania Lead Works, Salt Lake City, Utah.  
 Globe Smelting and Refining Co., Denver, Col.  
 Great Western Smelting and Refining Co., Chicago, Ill.  
 Hoyt Metal Co., St. Louis, Mo.  
 Omaha and Grant Smelting Co., Omaha, Neb.  
 St. Joseph Lead Co., 55 Liberty St., New York.  
 Williams & Son, E. A., 105 Plymouth St., Jersey City, N. J.  
 Wythe Lead and Zinc Mine Co., Austinville, Va.

## 1042 LEAD—Sheet—

Blatchford & Co., E. W., 70 N. Clinton St., Chicago, Ill.  
 Chadwick Lead Works, Boston, Mass.  
 Hoyt Metal Co., St. Louis, Mo.  
 National Lead Co., 100 William St., New York.  
 Raymond Lead Co., 51 Lake St., Chicago, Ill.  
 Selby Smelting and Lead Co., San Francisco, Cal.

## 1043 LEATHER—Artificial—

American Pegamoid Co., 339 Broadway, New York.  
 Boston Artificial Leather Co., Pearl St., Boston, Mass.  
 Neumann & Co., R., 76 Duane St., New York.  
 Pantasote Co., The, 29 Broadway, New York.

## 1044 LEATHER—Bellows—

Driscoll Tanning Co., 2415 S. 3d St., St. Louis, Mo.  
 Dwyer Leather Co., Newark, N. J.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Neumann & Co., R., 76 Duane St., New York.

## 1045 LEATHER—Belting—

American Oak Leather Co., 141 Main St., Cincinnati, Ohio.  
 Conrad Tanning Co., Louisville, Ky.  
 Groetzinger & Sons, A., Allegheny City, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lappe & Sons Oak Leather Co., M., Pittsburg, Pa.  
 Mooney & Sons, W. W., Columbus, Ind.  
 Rockwell, Theron, 195 William St., New York.  
 Sumner Belting Co., William, Tolland, Conn.  
 Union Belt Co., 66 Troy St., Fall River, Mass.  
 United States Leather Co., 28 Ferry St., New York.  
 Warren, J. F. & C. G., 151 Front St., Worcester, Mass.

## 1046 LEATHER—Car Seat—

American Pegamoid Co., 339 Broadway, New York.  
 Chase & Co., L. C., 129 Washington St., Boston, Mass.  
 Pantasote Co., The, 29 Broadway, New York.

**1047 LEATHER—Enameled—**

American Oak Leather Co., 141 Main St., Cincinnati, Ohio.  
 Gallum & Sons, A. F., Milwaukee, Wis.  
 Johnson, Thos. V., 56 Union Square, New York.  
 Pfister & Vogel Leather Co., Milwaukee, Wis.  
 Preston, Thomas F., Newark, N. J.  
 United States Leather Co., 28 Ferry St., New York.

**1048 LEATHER—Fancy—**

Blanchard Bros. & Lane, Newark, N. J.  
 Butler, Ed K., 57 High St., Boston, Mass.  
 Corell, Philip, 74 Duane St., New York.  
 Eagle Tanning Works, 214 Lake St., Chicago, Ill.  
 Lappe & Sons Tanning Co., J. C., Allegheny City, Pa.  
 Nevil & Sons, Joseph, 1016 St. John St., Philadelphia, Pa.  
 Pfister & Vogel Leather Co., Milwaukee, Wis.  
 Platz Leather Co., A., Racine, Wis.  
 Trautman & Co., C., Cincinnati, Ohio.  
 Weil & Bros., J. (Inc.), 413 Halstead St., Chicago, Ill.

**1049 LEATHER—Lace—**

American Supply Co., Providence, R. I.  
 Anstedt Leather Co., C., Milwaukee, Wis.  
 Bay State Belting Co., Boston, Mass.  
 Burgess & Son, A., Providence, R. I.  
 Chicago Raw Hide Manufacturing Co., 77 E. Ohio St., Chicago.  
 Detroit Oak Belting Co., 266 Wight St., Detroit, Mich.  
 Herkner, H. F., 281 Front St., New York.  
 Jewell Belting Co., Hartford, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lappe & Sons Oak Leather Co., M., Pittsburg, Pa.  
 New York Leather Belting Co., 8 Ferry St., New York.  
 Page Belting Co., Concord, N. H.  
 Schott Saddlery Co., J. B., Quincy, Ill.  
 Sumner Belting Co., William, Tolland, Conn.  
 Willemsen Belting Co., 205 Destrahan St., St. Louis, Mo.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**1050 LEATHER—Oak—**

American Oak Leather Co., 141 Main St., Cincinnati, Ohio.  
 Deford Co., Baltimore, Md.  
 Detroit Oak Belting Co., Detroit, Mich.  
 Fayerweather & Ladew, 159 Houston St., New York.  
 Lappe & Sons Oak Leather Co., M., Pittsburg, Pa.  
 Neumann & Co., R., 76 Duane St., New York.  
 Ritter, Richard, Louisville, Ky.  
 Smoot & Sons Co., C. C., Alexandria, Va.  
 United States Leather Co., 28 Ferry St., New York.  
 Webster & Co., 55 High St., Boston, Mass.

**1051 LEATHER—Oak Sole—**

American Oak Leather Co., 141 Main St., Cincinnati, Ohio.  
 Conrad Tanning Co., Lexington Ave., Louisville, Ky.  
 Cover, Drayton & Leonard, 355 N. 3d St., Philadelphia, Pa.

## 1051 LEATHER—Oak Sole—Continued.

Detroit Oak Belting Co., Detroit, Mich.  
 Fayerweather & Ladew, 159 E. Houston St., New York.  
 Grootzinger & Sons, A., Allegheny City, Pa.  
 Smoot & Sons Co., C. C., Alexandria, Va.

## 1052 LEATHER—Pebbled—

Beggs & Cobb, Boston, Mass.  
 Ellers & Movius Leather Co., 38 Spruce St., New York.  
 Grey, Clark & Engle, 201 Lake St., Chicago, Ill.  
 Lake Tanning Co., Elston Ave. and Wade St., Chicago, Ill.  
 Rueping Leather Co., Fred, Fond du Lac, Wis.  
 Schoening's Sons, Jacob, Randolph St., Philadelphia, Pa.  
 Trautman & Co., C., Cincinnati, Ohio.  
 Yohrlaut Leather Co., Herman, Milwaukee, Wis.

## 1053 LEATHER—Rawhide—

Becker Leather Co., William, Boston, Mass.  
 Chicago Rawhide Mfg. Co., 77 East Ohio St., Chicago, Ill.  
 Janney & Sons, E. K., 328 N. 2d St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Rahmann & Co., George, 31 Ferry St., New York.  
 Trautman & Co., C., Cincinnati, Ohio.

## 1054 LEATHER—Rawhide Lace—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Rahmann & Co., George, 31 Ferry St., New York.  
 Shultz Belting Co., St. Louis, Mo.

## 1055 LEATHER—Upholstery—

Adams & Keen, 60 N. 5th St., Philadelphia, Pa.  
 Barth, August, New Albany, Ind.  
 Blanchard Bros. & Lane, Newark, N. J.  
 Dawson & Co., I. W., Newark, N. J.  
 Halsey & Smith (Inc.), J. H., Newark, N. J.  
 Johnson, Thomas V., 56 Union Square, New York.  
 Mitchell & Thomas, Wilmington, Del.  
 Pantasote Co., The, 29 Broadway, New York.  
 Trautman & Co., C., Cincinnati, Ohio.  
 United States Leather Co., 28 Ferry St., New York.  
 Young Co., Richard, 35 Spruce St., New York.

## 1056 LENSES—Signal Lamp—

Adams & Westlake Co., Chicago, Ill.  
 Dietz Co., R. E., 60 Laight St., New York.  
 Dressel Railway Lamp Works, 3876 Park Ave., New York.  
 Gray, Peter, 12 Marshall St., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Libbey Glass Co., Toledo, Ohio.  
 Ohio Lantern Co., Tiffin, Ohio.  
 Railroad Signal Lamp and Lantern Co., 447 W. 53d St., New York.  
 Washington Glass Manufacturing Co., Washington, Pa.  
 Wheeler Reflector Co., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1057-LEVELS-

Athol Machine Co., Athol, Mass.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Davis & Cook, Watertown, N. Y.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Stanley Rule and Level Co., New Britain, Conn.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1058 LEVELS-Track-

Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Buda Foundry and Manufacturing Co., Harvey, Ill.  
 Chapin's Sons Co., H., Pine Meadow, Conn.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sheffield Car Co., Three Rivers, Mich.

1059 LEVEL AND GAUGE-Track-

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Verona Tool Works, Pittsburg, Pa.

1060 LIGHTS-Construction and Wrecking-

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 (Buckeye) MacLeod & Clark, 457 E. Front St., Cincinnati, Ohio.  
 Wells Light Mfg. Co., The, 46 Washington St., New York.

1061 LIGHTS-Gauge-Brass-

Dressel Railway Lamp Works, 3876 Park Ave., New York.  
 Gray, Peter, 12 Marshall St., Boston, Mass.

1062 LIGHTS-Sky-

Valle & Young, 216 N. Calvert St., Baltimore, Md.

1063 LIGHT BULBS-Incandescent-

Lippincott Glass Co., Alexandria, Ind.  
 Van Houten, E. J. S., 74 Park Place, New York.

1064 LIGHTING SYSTEMS-Electric-

O. & C. Electric Co., 143 Liberty St., New York.  
 Fort Wayne Electric Corporation, Ft. Wayne, Ind.  
 General Electric Co., Schenectady, N. Y.  
 Thompson-Houston Electric Co., 620 Atlantic Ave., Boston, Mass.  
 Westinghouse Electric and Manufacturing Co., Pittsburg, Pa.



## 1065 LIGHTNING RODS—

Cole Bros. (Inc.), 412 S. 7th St., St. Louis, Mo.  
 Hum & Leatherman, Pittsburg, Pa.  
 Miller, A. F., 6616 7th St., St. Louis, Mo.  
 Reyburn, Hunter & Co., Philadelphia, Pa.  
 Washburn & Co., E. G., 46 Cortlandt St., New York.

## 1066 LIME—

Anniston Lime and Stone Co., Carondelet St., New Orleans, La.  
 Austin White Lime Co., Austin, Tex.  
 Chicago Union Lime Works, 610 Chamber of Commerce, Chicago.  
 CONSOLIDATED COAL AND LIME CO., Indianapolis, Ind.  
 Cowell & Co., Henry, San Francisco, Cal.  
 Kelley Island Lime and Transport Co., Cleveland, Ohio.  
 Maryland Lime and Cement Co., Baltimore, Md.  
 Mayville White Lime Works, Mayville, Wis.  
 Moross & Co., C. A., Chattanooga, Tenn.  
 Newark Lime and Cement Manufacturing Co., Newark, N. J.  
 Prentice & Packett, Pittsburg, Pa.  
 Texas Lime Co., Manistique, Mich.

## 1067 LINERS—Draughtsmen's—

Gardam & Son, W., 45 Rose St., New York.  
 Starrett Co., L. S., Athol, Mass.

## 1068 LININGS—Blast Furnace and Cupola—

AMERICAN CLAY MFG. CO. OF NEW JERSEY, Pittsburg, Pa.  
 See ad. page A 1.  
 Boston Fire Brick and Clay Retort Mfg. Co., Boston, Mass.  
 Denver Fire Clay Co., Denver, Col.  
 Manown Manufacturing Co., Park Bldg., Pittsburg, Pa.  
 McLeod & Henry Co., Troy, N. Y.  
 Parker-Russell Mining and Mfg. Co., Pine St., St. Louis, Mo.  
 Pittsburg Clay Pot Co., Allegheny, Pa.  
 Valentine Bros. Co., M. D., Woodbridge, N. J.

## 1069 LININGS—Fire Brick—

AMERICAN CLAY MFG. CO. OF NEW JERSEY, Pittsburg, Pa.  
 See ad. page A 1.  
 French & Winslow, Taunton, Mass.  
 Presbrey Stove Lining Co., Taunton, Mass.

## 1070 LININGS—Head—

Pantasote Co., The, 29 Broadway, New York.

## 1071 LININGS—Veneer—

Woodman, Joel H., Hoboken, N. J.

## 1072 LINKS—Coupling—

Ajax Forge Co., 138 Jackson Boulevard, Chicago, Ill.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Cleveland City Forge and Iron Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pittsburg Forge and Iron Co., Pittsburg, Pa.  
 Tredegar Co., Richmond Va.  
 Vulcan Iron Works, Wilkesbarre, Pa.

1073 LINOLEUM—

Blabon & Co., George W., 34 W. 5th St., Philadelphia, Pa.  
 Nalrn Linoleum Co., Kearney, N. J.  
 Potter Sons & Co., Thomas, 522 Arch St., Philadelphia, Pa.  
 Powers & Sons, Deborah, Lansingburg, N. Y.  
 Reeves, R. H. & B. C., Camden, N. J.  
 Trenton Oil Cloth and Linoleum Co., Trenton, N. J.

A1073 LOAM—

GARDEN CITY SAND CO., Chicago, Ill. See ad. page A 2.

1074 LOCKS—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1075 LOCKS—Car Door—

Bohannon, Willson, 760 Lexington Ave., Brooklyn, N. Y.  
 Chicago Grain Door Co., Mondnock Block, Chicago, Ill.  
 Creamer & Co., W. G., 96 John St., New York.  
 Dayton Manufacturing Co., Dayton, Ohio.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Q. & C. Co., Chicago, Ill.  
 Romer & Co., Newark, N. J.  
 Russell & Erwin Manufacturing Co., 45 Chambers St., New York.  
 Sargent & Co., New Haven, Conn.  
 Stewart & Mattson Mfg. Co., 2042 N. 10th St., Philadelphia, Pa.

1076 LOCKS—Switch—

Adams & Westlake Co., Ontario and Franklin Sts., Chicago, Ill.  
 Bohannon, Willson, 760 Lexington Ave., Brooklyn, N. Y.  
 Dayton Manufacturing Co., Dayton, Ohio.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Miller Lock Co., 4523 Tacony St., Philadelphia, Pa.  
 Stewart & Mattson Mfg. Co., 2042 N. 10th St., Philadelphia, Pa.

1077 LOCOMOTIVES—Compressed Air—

Baldwin Locomotive Works, 500 N. Broad St., Philadelphia, Pa.  
 Porter Co., H. K., Pittsburg, Pa.

1078 LOCOMOTIVES—Contractors—

Byers Machine Co., John F., Ravenna, Ohio.  
 Porter Co., H. K., Pittsburg, Pa.

## 1079 LOCOMOTIVES—Electric—

Baldwin Locomotive Works, 500 N. Broad St., Philadelphia, Pa.  
 Brill Co., J. G., Philadelphia, Pa.  
 General Electric Co., Schenectady, N. Y.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Jeffrey Manufacturing Co., Columbus, Ohio.  
 Thompson-Houston Electric Co., Boston, Mass.  
 Webster, Camp & Lane Machine Co., Akron, Ohio.

## 1080 LOCOMOTIVES—Gasoline—

Prox & Brinkman Manufacturing Co., Terre Haute, Ind.

## 1081 LOCOMOTIVES—Geared—

Lima Locomotive and Machine Co., Lima, Ohio.  
 Stearns Manufacturing Co., Erie, Pa.

## 1082 LOCOMOTIVES—Light—

Baldwin Locomotive Works, 500 N. Broad St., Philadelphia, Pa.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Lima Locomotive and Machine Co., Lima, Ohio.  
 Porter Co., H. K., Pittsburg, Pa.  
 RAILWAY EQUIPMENT AND FINANCE CO., THE, Indian-  
 apolis, Ind. See ad. page B 1.  
 Vulcan Iron Works, Wilkesbarre, Pa.

## 1083 LOCOMOTIVES—Mining—

Akron Electrical Manufacturing Co., Akron, Ohio.  
 Porter Co., H. K., Pittsburg, Pa.

## 1084 LOCOMOTIVES—Steam—

Adonis & Price Locomotive Machine Works, Nashville, Tenn.  
 Baldwin Locomotive Works, 500 N. Broad St., Philadelphia, Pa.  
 Brooks Locomotive Works, Dunkirk, N. Y.  
 Cooke Locomotive and Machine Co., Patterson, N. J.  
 Dickson Manufacturing Co., Scranton, Pa.  
 International Power Co., Providence, R. I.  
 Lima Locomotive and Machine Co., Lima, Ohio.  
 Manchester Locomotive Works, Manchester, N. H.  
 Mason Machine Works, Taunton, Mass.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 Pittsburg Locomotive and Car Works, Pittsburg, Pa.  
 Porter Co., H. K., Pittsburg, Pa.  
 Portland Co., Portland, Me.  
 RAILWAY EQUIPMENT AND FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.  
 Rhode Island Locomotive Works, Providence, R. I.  
 Richmond Locomotive and Machine Works, Richmond, Va.  
 Risdon Iron and Locomotive Works, San Francisco, Cal.  
 Rogers Locomotive Co., Paterson, N. J.  
 Schenectady Locomotive Works, Schenectady, N. Y.  
 Taunton Locomotive Manufacturing Co., Taunton, Mass.  
 Vulcan Iron Works, Wilkesbarre, Pa.

- 1085 LOCOMOTIVES—Tramway—  
 Climax Manufacturing Co., Corry, Pa.  
 Porter Co., H. K., Pittsburg, Pa.
- 1086 LOCOMOTIVE APPLIANCES—For Steam Economy—  
 Locomotive Appliance Co., 1504 Fisher Bldg., Chicago, Ill.
- 1088 LUBRICATORS—Air Pump—Sight Feed—  
 Detroit Lubricator Co., The, Hodges Bldg., Detroit, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 MICHIGAN LUBRICATOR CO., Beaubien St., Detroit, Mich.  
 See ad. page A 1.
- 1090 LUBRICATORS—Cylinder—Sight Feed—  
 Crosby Steam Gage and Valve Co., Oliver St., Boston, Mass.  
 Detroit Lubricator Co., The, Hodges Bldg., Detroit, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lunkenheimer Co., Cincinnati, Ohio.  
 MICHIGAN LUBRICATOR CO., Beaubien St., Detroit, Mich.  
 See ad. page A 1.  
 Nathan Manufacturing Co., 92 Liberty St., New York.  
 Powell Co., William, Cincinnati, O.  
 Star Brass Manufacturing Co., Boston, Mass.  
 Swift Lubricator Co., Elmira, N. Y.
- 1091 LUBRICATORS—Dynamo—  
 Detroit Lubricator Co., Detroit, Mich.  
 MICHIGAN LUBRICATOR CO., Detroit, Mich. See ad. page A 1.  
 Lunkenheimer Co., Cincinnati, Ohio.  
 Powell Co., Wm., 50 Plum St., Cincinnati, Ohio.  
 Sherwood Manufacturing Co., Buffalo, N. Y.
- 1093 LUGS—Pressed Steel—  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.
- 1094 LUMBER—Ash—  
 Barnes, G. H., 1014 Chemical Bldg., St. Louis, Mo.  
 Black Water Lumber Co. (Inc.), Davis, W. Va.  
 Bowman Lumber Co., St. Albans, W. Va.  
 Cypress Lumber Co., Apalachicola, Fla.  
 Desha Lumber Co., Arkansas City, Ark.  
 Elkin, R. T., Roundstone, Ky.  
 Hartwell Bros., Vincennes, Ind.  
 Indiana and Arkansas Lumber and Mfg. Co., Marianna, Ark.  
 Liebke Hardwood Mill and Lumber Co., C. F., St. Louis, Mo.  
 Moore & McFerrin, Memphis, Tenn.  
 Southern Pine Co. of Georgia, Savannah, Ga.  
 STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.
- 1095 LUMBER—Beech—  
 Black Water Lumber Co. (Inc.), Davis, W. Va.
- 1096 LUMBER—Birch—White—  
 Smith & Co., H. B., Hanover, Me.  
 STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

**1097 LUMBER—Cedar—**

Burnside Manufacturing Co., Burnside, Ky.

Prewitt, Spurr & Co., Nashville, Tenn.

STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

Wisconsin Land and Lumber Co., Hermansville, Mich.

**1098 LUMBER—Cedar—Red—**

Cypress Lumber Co., Apalachicola, Fla.

Earthman & Co., W. V., Murfreesboro, Tenn.

STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

**1099 LUMBER—Cherry—**

Barnes, G. H., 1014 Chemical Bldg., St. Louis, Mo.

Black Water Lumber Co. (Inc.), Davis, W. Va.

Rumbarger Lumber Co., J. L., Dobbin, W. Va.

STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

**1100 LUMBER—Chestnut—**

Blazer & Co., H., Conway, Ky.

Boyd, G. W., Nashville, Tenn.

Clay City Lumber and Stave Co., Clay City, Ky.

Kaufman Bros., Hawesville, Ky.

STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

**1101 LUMBER—Cottonwood—**

Burton Lumber Co., Baton Rouge, La.

Indiana and Arkansas Lumber and Mfg. Co., Marianna, Ark.

McDowell, John, Mound City, Ill.

Moore & McFerrin, Memphis, Tenn.

**1102 LUMBER—Creosoted—**

Eppinger & Russell Co., 66 Broadway, New York.

International Creosoting and Construction Co., Beaumont, Tex.

Michigan Pipe Co., Bay City, Mich.

Norfolk Creosoting Co., Norfolk, Va.

STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

West Pascagoula Creosote Works, W. Pascagoula, Miss.

**1103 LUMBER—Cypress—**

Atlanta Lumber Co., Atlanta, Ga.

Bradshaw, Joel, Franklin, Va.

Burton Lumber Co., Baton Rouge, La.

Cypress Lumber Co., Apalachicola, Fla.

Ferrenburg, W. W., La Forge, Mo.

Short Lumber Co., E. M., Washington, N. C.

Southern Pine Co. of Georgia, Savannah, Ga.

STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

Tufts Lumber Co., C. E., Sanford, Fla.

Vanderbilt & Hopkins, 120 Liberty St., New York.

Wright Co., W. B., Pensacola, Fla.

**1104 LUMBER—Elm—**

E. Jordan Lumber Co., E. Jordan, Mich.

Ricker Bros., Clearwater, Mich.

STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

## A1104-1109

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### A1104 LUMBER—Fir—Oregon—

STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

### 1105 LUMBER—Hardwood—

Albro Co., The E. D., Cincinnati, Ohio.  
Baxter & Co., G. S., 18 Wall St., New York.  
Brownlee & Co., Detroit, Mich.  
Butters & Peters Salt and Lumber Co., Ludington, Mich.  
Doud Sons & Co., Winona, Minn.  
Holloway, A. N., Lebanon, Ind.  
Interior Hardwood Co., Indianapolis, Ind.  
Langford & Hall Lumber Co., Fulton, Ill.  
Ricker Bros., Clearwater, Mich.  
STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.  
Uptegrove & Bros., W. E., 465 E. 10th St., New York.  
Weaver Bending Co., Gallon, Ohio.  
Week Lumber Co., J., Stevens Point, Wis.

### 1106 LUMBER—Hemlock—

Black Water Lumber Co. (Inc.), Davis, W. Va.  
Butters & Peters Salt and Lumber Co., Ludington, Mich.  
Doud Sons & Co., Winona, Minn.  
East Jordan Lumber Co., East Jordan, Mich.  
Elkin, R. T., Roundstone, Ky.  
Hall, Edmund, Bay City, Mich.  
Jenks Lumber Co., The Robert H., 176 Euclid Ave., Cleveland, O.  
Rumbarger Lumber Co., J. L., Dobbin, W. Va.  
STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.  
Week Lumber Co., John, Stevens Point, Wis.  
Wilson Lumber Co., Wilson, W. Va.  
Wisconsin Land and Lumber Co., Hermannville, Mich.

### 1107 LUMBER—Hickory—

Bachman, F. M., Indianapolis, Ind.  
Desha Lumber Co., Arkansas City, Ark.  
Elkin, R. T., Roundstone, Ky.  
Foster & Bro., O. D., Fredericksburg, Va.  
Garetson-Greaseon Lumber Co., Poplar Bluff, Mo.  
Hartwell Bros., Vincennes, Ind.  
STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

### 1108 LUMBER—Maple—

E. Jordan Lumber Co., E. Jordan, Mich.  
Richard & Betchold, Bellaire, Mich.  
Ricker Bros., Clearwater, Mich.  
STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

### 1109 LUMBER—Oak—

Platchley, C. G., Swanson and McKean Sts., Philadelphia, Pa.  
Bowman Lumber Co., St. Albans, W. Va.  
Clarkson Sawmill Co., Leeper, Mo.  
Clove's Sons, Joseph, Henderson, Ky.  
Desha Lumber Co., Arkansas City, Ark.  
Elkin, R. T., Roundstone, Ky.  
Foster & Bro., O. D., Fredericksburg, Va.

## 1109 LUMBER—Oak—Continued.

Garetson-Greason Lumber Co., Poplar Bluff, Mo.  
 Griffen Lumber Co., George M., St. Louis, Mo.  
 Hartwell Bros., Vincennes, Ind.  
 Hilliard, George W., Brighton, Ill.  
 Hoffman, J. R., Charleston, W. Va.  
 Indiana and Arkansas Lumber and Mfg. Co., Marianna, Ark.  
 Kansas City and Southern Lumber Co., Kansas City, Mo.  
 Liebke Hardwood Mill and Lumber Co., C. F., St. Louis, Mo.  
 Missouri Lumber and Mining Co., Grandin, Mo.  
 Rumbarger Lumber Co., J. L., Dobbins, W. Va.  
 Southern Pine Co. of Georgia, Savannah, Ga.  
 STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.  
 Vanderbilt & Hopkins, 120 Liberty St., New York.

## 1110 LUMBER—Oak—Quarter-sawed—

Indiana and Arkansas Lumber and Mfg. Co., Marianna, Ark.

## 1111 LUMBER—Oak—Red—

Clay City Lumber and Stave Co., Clay City, Ky.  
 STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

## 1112 LUMBER—Pine—Georgia—

Macon Sash, Door and Lumber Co., 514 4th St., Macon, Ga.  
 Southern Pine Co. of Georgia, Savannah, Ga.  
 STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

## 1113 LUMBER—Pine—Oregon—

California Lumber Co., San Francisco, Cal.  
 STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

## 1114 LUMBER—Pine—White—

Badger Lumber Co., Kansas City, Mo.  
 Barnes, G. H., 1014 Chemical Bldg., St. Louis, Mo.  
 Beman, Oliver, La Veta, Col.  
 Bradley & Son, N. B., Bay City, Mich.  
 Brownlee & Co., Detroit, Mich.  
 Butters & Peters Salt and Lumber Co., Ludington, Mich.  
 Clay City Lumber and Stave Co., Clay City, Ky.  
 Cleveland Sawmill and Lumber Co., Cleveland, Ohio.  
 Dimock, Gould & Co., Moline, Ill.  
 Doud, Sons & Co., Winona, Minn.  
 Griffen Lumber Co., George M., St. Louis, Mo.  
 Hall, Edmund, Bay City, Mich.  
 Hannibal Sawmill Co., Hannibal, Mo.  
 La Crosse Lumber Co., La Crosse, Wis.  
 Laird-Norton Co., Winona, Minn.  
 Langford & Hall Lumber Co., Fulton, Ill.  
 McConnell Manufacturing Co., Hornersville, N. Y.  
 McMullen & Co., Minneapolis, Minn.  
 Musser Lumber Co., Muscatine, Ia.  
 Rand Lumber Co., Burlington, Ia.  
 Roberson & Son, A., Binghamton, N. Y.  
 Rock Island Lumber and Manufacturing Co., Rock Island, Ill.  
 Roper Lumber Co., John L., Norfolk, Va.  
 STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.  
 Vanderbilt & Hopkins, 120 Liberty St., New York.  
 Wisconsin Land and Lumber Co., Hermansville, Mich.

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1115 LUMBER—Pine—Yellow—

Anderson Lumber Co., Charleston, S. C.  
 Atlanta Lumber Co., Atlanta, Ga.  
 Atlantic Sawmill Co., Norfolk, Va.  
 Badger Lumber Co., Kansas City, Mo.  
 Barnes, G. H., 1014 Chemical Bldg., St. Louis, Mo.  
 Bradley-Ramsay Lumber Co., Lake Charles, La.  
 Canton Box Co., Baltimore, Md.  
 Carney, James A., Carney, Ala.  
 Clarkson Sawmill Co., Leeper, Mo.  
 Clove's Sons, Joseph, Henderson, Ky.  
 Cotton Belt Lumber Co., Bearden, Ark.  
 CRESCENT YELLOW PINE LUMBER CO., 171 LaSalle St.,  
 Chicago, Ill. See ad. page A 4.  
 Cypress Lumber Co., Apalachicola, Fla.  
 Dixon, Mitchell & Co., Savannah, Ga.  
 Elkin, R. T., Roundstone, Ky.  
 Excelsior Redwood Co., San Francisco, Cal.  
 Foster & Bro., O. D., Fredericksburg, Va.  
 Frost-Trigg Lumber Co., Lincoln Trust Bldg., St. Louis, Mo.  
 Griffen Lumber Co., George M., St. Louis, Mo.  
 Halsey, E. L., Charleston, S. C.  
 Jenks Lumber Co., The Robert H., 176 Euclid Ave., Cleveland, O.  
 Nassau Packing Co., Fernandina, Fla.  
 Ozark Land and Lumber Co., Winona, Mo.  
 Southern Pine Co. of Georgia, Savannah, Ga.  
 STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.  
 Texas Tram and Lumber Co., Beaumont, Tex.  
 Trinity County Lumber Co. (Inc.), Groveton, Tex.  
 Tunis & Bro., Sanford, Fla.  
 Vanderbilt & Hopkins, 120 Liberty St., New York.  
 Wright Co., W. B., Pensacola, Fla.

1116 LUMBER—Poplar—

Barnes, G. H., 1014 Chemical Bldg., St. Louis, Mo.  
 Clay City Lumber and Stave Co., Clay City, Ky.  
 Elkin, R. T., Roundstone, Ky.  
 Griffen Lumber Co., Geo. M., St. Louis, Mo.  
 Hoffman, J. R., Charleston, W. Va.  
 Jones Lumber Co., Williamsburg, Ky.  
 McConnell Manufacturing Co., Hornersville, N. Y.  
 McDowell, John, Mound City, Ill.  
 Moore & McFerrin, Memphis, Tenn.  
 Roberson & Son, A., Binghamton, N. Y.  
 Sheip Mfg. Co., H. H., Columbia and Randolph, Philadelphia, Pa.  
 STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

1117 LUMBER—Redwood—

Adams, W. J., San Francisco, Cal.  
 Calaveras Big Tree Co., Big Trees, Cal.  
 Hobbs, Wall & Co. (Inc.), Crescent City, Cal.  
 Mensocino Lumber Co., San Francisco, Cal.  
 STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.



## 1118 LUMBER—Spruce—

Beman, Oliver, La Veta, Col.  
 Berlin Mills Co., 404 Commercial St., Portland, Me.  
 Blackwater Lumber Co. (Inc.), Davis, W. Va.  
 Rumbarger Lumber Co., J. L., Dobbins, W. Va.  
 STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.  
 Wilson Lumber Co., Wilson, W. Va.

## 1119 LUMBER—Sycamore—

Estate of James Bell, Ullin, Ill.  
 STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

## 1120 LUMBER—Walnut—

Bowman Lumber Co., St. Albans, W. Va.  
 Garetson-Greason Lumber Co., Poplar Bluff, Mo.  
 Hilliard, George W., Brighton, Ill.  
 Hoffman, J. R., Charleston, W. Va.  
 Jones Lumber Co., Williamsburg, Ky.  
 Langford & Hall Lumber Co., Fulton, Ill.  
 Liebke Hardwood Mill and Lumber Co., C. F., St. Louis, Mo.  
 STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

## 1121 MACHINES—Adding and Calculating—

American Arithmometer Co., St. Louis, Mo.  
 Beach, E. R., 60 Westside Ave., Jersey City, N. J.  
 Felt & Tarrant Manufacturing Co., 52 Illinois St., Chicago, Ill.  
 International Arithmachine Co., The, 101 La Salle St., Chicago, Ill.  
 Kruse & Murphy Manufacturing Co., 457 W. 26th St., New York.  
 Plumb, David S., Newark, N. J.  
 Rochester Cash Register Co., Rochester, N. Y.

## 1122 MACHINES—Ash Handling—

Link Belt Machinery Co., Chicago, Ill.

## 1123 MACHINES—Belt Stretching—

Estate of Charles Holmes, 23 W. 1st St., Boston, Mass.  
 Granger Foundry and Machine Co., Providence, R. I.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 1124 MACHINES—Bending—

Bement, Miles & Co., Philadelphia, Pa.  
 Fulton Iron and Engine Works, Detroit, Mich.  
 Hurlbut Co., Racine, Wis.  
 Kenney & Co., Scottsdale, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDowell, Stocker & Co., Chicago, Ill.  
 National Machinery Co., Tiffin, Ohio.  
 Pittsburg Manufacturing Co., Pittsburg, Pa.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Stiles Press Co., E. S., Watertown, N. Y.  
 Watson-Stillman Co., 204 E. 43d St., New York.  
 Wiley & Russell Manufacturing Co., Greenfield, Mass.  
 Williams, White & Co., Moline, Ill.

- 1138 MACHINES—Wood Boring—Bench—**  
 American Wood Working Machine Co., 141 Broadway, New York.  
 Fay & Egan Co., J. A., Cincinnati, Ohio.  
 Goodell & Waters, 3101 Chestnut St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Rogers & Co., C. B., Norwich, Conn.  
 Smith Machine Co., H. B., Smithville, N. J.
- 1140 MACHINES—Boring—Car Box—**  
 Bement, Miles & Co., Philadelphia, Pa.  
 Detrick & Harvey Machine Co., Baltimore, Md.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 1141 MACHINES—Boring—Car Wheel—**  
 Bement, Miles & Co., Philadelphia, Pa.  
 Betts Machine Co., Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDowell, Stocker & Co., Chicago, Ill.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Putnam Machine Co., Fitchburg, Mass.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Vulcan Iron Works, Wilkesbarre, Pa.
- 1142 MACHINES—Boring—Chord—**  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.
- 1143 MACHINES—Boring—Crank—**  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.
- 1144 MACHINES—Boring—Cylinder—**  
 Bement, Miles & Co., Philadelphia, Pa.  
 Betts Machine Co., Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Meadville Vise Co., Meadville, Pa.  
 Newton Machine Tool Works, 2347 Vine St., Philadelphia, Pa.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Pedrick & Ayer Co., 1001 Hamilton St., Philadelphia, Pa.  
 Sellers & Co. (Inc.), Wm., Philadelphia, Pa.
- 1145 MACHINES—Boring—Double—**  
 Fay & Egan Co., J. A., Cincinnati, Ohio.  
 Goodell & Waters, 3101 Chestnut St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Rogers & Co., C. B. Norwich, Conn.
- 1146 MACHINES—Boring—Floor—**  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.

- 1147 MACHINES—Boring—Horizontal—  
American Wood Working Machine Co., 141 Broadway, New York.  
Baush & Harris Machine Tool Co., Springfield, Mass.  
Bement, Miles & Co., Philadelphia, Pa.  
CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
Fay & Egan Co., J. A., Cincinnati, Ohio.  
Fitchburg Machine Works, Fitchburg, Mass.  
Garvin Machine Co., 137 Varick St., New York.  
Holmes Machinery Co., E. & B., Buffalo, N. Y.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Newton Machine Tool Works, 2347 Vine St., Philadelphia, Pa.  
Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.
- 1148 MACHINES—Boring—Pneumatic—  
CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago,  
Ill. See ad. page B 2.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Standard Pneumatic Tool Co., Marquette Bldg., Chicago, Ill.  
Standard Railway Equipment Co., St. Louis, Mo.
- 1149 MACHINES—Boring—Portable—  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Stow Flexible Shaft Co., N. 26th St., Philadelphia, Pa.  
Stow Manufacturing Co., Binghamton, N. Y.
1150. MACHINES—Boring—Universal—  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Niles Tool Works Co., Hamilton, Ohio.  
Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.
- 1151 MACHINES—Boring—Vertical—  
American Wood Working Machine Co., 141 Broadway, New York.  
Bement, Miles & Co., Philadelphia, Pa.  
Defiance Machine Works, Defiance, Ohio.  
Fay & Egan Co., J. A., Cincinnati, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Newton Machine Tool Works, 2347 Vine St., Philadelphia, Pa.  
Powers & Co., L., 20 S. 23d St., Philadelphia, Pa.  
Rogers & Co., C. B., Norwich, Conn.  
Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.
- 1152 MACHINES—Boring and Turning Mills—  
American Tool Works Co., Cincinnati, Ohio.  
Bickford Drill and Tool Co., Cincinnati, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.
- 1153 MACHINES—Iron Boring and Turning—Vertical—  
Bement, Miles & Co., Philadelphia, Pa.  
Bullard Machine Tool Co., Bridgeport, Conn.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
McDowell, Stocker & Co., Chicago, Ill.  
New Haven Manufacturing Co., New Haven, Conn.  
Niles Tool Works Co., Hamilton, Ohio.

- 1138 MACHINES—Wood Boring—Bench—  
 American Wood Working Machine Co., 141 Broadway, New York.  
 Fay & Egan Co., J. A., Cincinnati, Ohio.  
 Goodell & Waters, 3101 Chestnut St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Rogers & Co., C. B., Norwich, Conn.  
 Smith Machine Co., H. B., Smithville, N. J.
- 1140 MACHINES—Boring—Car Box—  
 Bement, Miles & Co., Philadelphia, Pa.  
 Detrick & Harvey Machine Co., Baltimore, Md.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 1141 MACHINES—Boring—Car Wheel—  
 Bement, Miles & Co., Philadelphia, Pa.  
 Betts Machine Co., Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDowell, Stocker & Co., Chicago, Ill.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Putnam Machine Co., Fitchburg, Mass.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Vulcan Iron Works, Wilkesbarre, Pa.
- 1142 MACHINES—Boring—Chord—  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.
- 1143 MACHINES—Boring—Crank—  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.
- 1144 MACHINES—Boring—Cylinder—  
 Bement, Miles & Co., Philadelphia, Pa.  
 Betts Machine Co., Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Meadville Vise Co., Meadville, Pa.  
 Newton Machine Tool Works, 2347 Vine St., Philadelphia, Pa.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Pedrick & Ayer Co., 1001 Hamilton St., Philadelphia, Pa.  
 Sellers & Co. (Inc.), Wm., Philadelphia, Pa.
- 1145 MACHINES—Boring—Double—  
 Fay & Egan Co., J. A., Cincinnati, Ohio.  
 Goodell & Waters, 3101 Chestnut St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Rogers & Co., C. B. Norwich, Conn.
- 1146 MACHINES—Boring—Floor—  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.

**1147 MACHINES—Boring—Horizontal—**

American Wood Working Machine Co., 141 Broadway, New York.  
 Bausch & Harris Machine Tool Co., Springfield, Mass.  
 Bement, Miles & Co., Philadelphia, Pa.  
 CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 Fay & Egan Co., J. A., Cincinnati, Ohio.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 Garvin Machine Co., 137 Varick St., New York.  
 Holmes Machinery Co., E. & B., Buffalo, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Newton Machine Tool Works, 2347 Vine St., Philadelphia, Pa.  
 Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.

**1148 MACHINES—Boring—Pneumatic—**

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago,  
 Ill. See ad. page B 2.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Standard Pneumatic Tool Co., Marquette Bldg., Chicago, Ill.  
 Standard Railway Equipment Co., St. Louis, Mo.

**1149 MACHINES—Boring—Portable—**

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Stow Flexible Shaft Co., N. 26th St., Philadelphia, Pa.  
 Stow Manufacturing Co., Binghamton, N. Y.

**1150. MACHINES—Boring—Universal—**

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.

**1151 MACHINES—Boring—Vertical—**

American Wood Working Machine Co., 141 Broadway, New York.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Defiance Machine Works, Defiance, Ohio.  
 Fay & Egan Co., J. A., Cincinnati, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Newton Machine Tool Works, 2347 Vine St., Philadelphia, Pa.  
 Powers & Co., L., 20 S. 23d St., Philadelphia, Pa.  
 Rogers & Co., C. B., Norwich, Conn.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.

**1152 MACHINES—Boring and Turning Mills—**

American Tool Works Co., Cincinnati, Ohio.  
 Bickford Drill and Tool Co., Cincinnati, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

**1153 MACHINES—Iron Boring and Turning—Vertical—**

Bement, Miles & Co., Philadelphia, Pa.  
 Bullard Machine Tool Co., Bridgeport, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDowell, Stocker & Co., Chicago, Ill.  
 New Haven Manufacturing Co., New Haven, Conn.  
 Niles Tool Works Co., Hamilton, Ohio.

1154 MACHINES—Boring Bars—

Bement, Miles & Co., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Pedrick & Ayer Co., 1001 Hamilton St., Philadelphia, Pa.  
 Sellers & Co. (Inc.), Wm., Philadelphia, Pa.  
 Underwood & Co., H. B., 1025 Hamilton St., Philadelphia, Pa.

1155 MACHINES—Iron Boring Mills—Horizontal—

Bement, Miles & Co., Philadelphia, Pa.  
 Bliss Co., E. W., Plymouth St., Brooklyn, N. Y.  
 Draper Machine Tool Co., Worcester, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDowell, Stocker & Co., Chicago, Ill.  
 Marshall & Hushart Machinery Co., 62 S. Canal St., Chicago, Ill.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Putnam Machine Co., Fitchburg, Mass.

1156 MACHINES—Bulldozers—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDowell, Stocker & Co., Chicago, Ill.  
 Marshall & Hushart Machinery Co., 62 S. Canal St., Chicago, Ill.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
 Williams, White & Co., Moline, Ill.

1157 MACHINES—Car Link and Pin—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 National Machinery Co., Tiffin, Ohio.

1158 MACHINES—Car Shop—

Acme Machinery Co., Cleveland, Ohio.  
 Atlantic Works, Philadelphia, Pa.  
 Baird Machinery Co., U., 1123 Water St., Pittsburg, Pa.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Bentel & Margedant Co., Hamilton, Ohio.  
 CARSE BROS. CO., 64 Wabash Ave., Chicago. See ad. page A 3.  
 Fay & Egan Co., J. A., Cincinnati, Ohio.  
 Fox Machinery Co., Grand Rapids, Mich.  
 Greenlee Bros. & Co., 225 W. 12th St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDowell, Stocker & Co., Chicago, Ill.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Wood Machine Co., S. A., Chicago, Ill.

1159 MACHINES—Centering—

Bement, Miles & Co., Philadelphia, Pa.  
 Gould & Eberhardt, Newark, N. J.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDowell, Stocker & Co., Chicago, Ill.  
 Pond Haven Manufacturing Co., New Haven, Conn.  
 Pond Machine Tool Co., Plainfield, N. J.  
 Pratt & Whitney Co., Hartford, Conn.

**1160 MACHINES—Chuckling—**

Brown & Sharpe Manufacturing Co., Providence, R. I.  
Bullard Machine Tool Co., Bridgeport, Conn.  
Garvin Machine Co., Spring and Varick Sts., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Lodge & Shipley Machine Tool Co., Cincinnati, Ohio.  
McDowell, Stocker & Co., Chicago, Ill.  
Pond Machine Tool Co., Plainfield, N. J.  
Pratt & Whitney Co., Hartford, Conn.

**1161 MACHINES—Coal and Ore Handling—**

Brown Hoisting and Conveying Machine Co., The, Cleveland.  
Bullock Manufacturing Co., M. C., 1170 W. Lake St., Chicago, Ill.  
Chain Belt Co., Milwaukee, Wis.  
Chisholm Steel Shovel Works, Cleveland, Ohio.  
Clark Co., W. J., Salem, Ohio.  
Diamond Iron Works, Minneapolis, Minn.  
Hunt Co., C. W., 45 Broadway, New York.  
Jeffrey Manufacturing Co., Columbus, Ohio.  
Leschen & Sons, A., St. Louis, Mo.  
Vulcan Iron Works, Wilkesbarre, Pa.  
Webster, Camp & Lane Machine Co., Akron, Ohio.

**1162 MACHINES—Combined Pipe Cutting and Threading—**

Bignall & Keeler Manufacturing Co., Edwardsville, Ill.  
Columbus Machine Co., Columbus, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
McDowell, Stocker & Co., Chicago, Ill.  
Merrell Manufacturing Co., 502 Curtis St., Toledo, Ohio.

**1163 MACHINES—Conveying—**

Allis Co., Edward P., Milwaukee, Wis.  
Bartlett & Co., C. O., Cleveland, Ohio.  
Chain Belt Co., Milwaukee, Wis.  
Hunt Co., C. W., 45 Broadway, New York.  
Jeffrey Manufacturing Co., Columbus, Ohio.  
Leschen & Sons Rope Co., A., St. Louis, Mo.  
Lidgerwood Manufacturing Co., 96 Liberty St., New York.  
Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.

**1164 MACHINES—Ditching—**

Austin Manufacturing Co., F. C., Harvey, Ill.  
Benicia Agricultural Works, Benicia, Cal.  
Contractors' Plant Manufacturing Co., Buffalo, N. Y.  
Enterprise Manufacturing Co., Columbiana, Ohio.  
Marion Steam Shovel Co., Marion, Ohio.  
McDuff, H. H., Agent, 521 Monadnock Block, Chicago, Ill.  
Osgood Dredge Co., Albany, N. Y.  
Western Wheeled Scraper Co., Aurora, Ill.

**1165 MACHINES—Draw-Bridge—**

VULCAN IRON WORKS, 59 Milwaukee Ave., Chicago, Ill.

1166 MACHINES—Drilling—

American Diamond Rock Drill Co., New York.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Boynton & Plummer, Worcester, Mass.  
 Buffalo Forge Co., Buffalo, N. Y.  
 Bullock Manufacturing Co., 1170 Lake St., Chicago, Ill.  
 Cleveland Punch and Shear Works Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Knecht Bros. Co., The, 2442 Beekman St., Cincinnati, Ohio.  
 Marshall & Hueschart Machinery Co., 62 S. Canal St., Chicago, Ill.  
 McDowell, Stocker & Co., Chicago, Ill.  
 Newton Machine Tool Works (Inc.), 2347 Vine St., Philadelphia.  
 Q. & C. Co., 700 Western Union Bldg., Chicago, Ill.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Sibley & Ware, South Bend, Ind.

1167 MACHINES—Drilling and Countersinking—

Baush & Harris Machine Tool Co., Springfield, Mass.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Cleveland Punch and Shear Works Co., Cleveland, Ohio.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDowell, Stocker & Co., Chicago, Ill.

1168 MACHINES—Drills—Arch Bar—

Bement, Miles & Co., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDowell, Stocker & Co., Chicago, Ill.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

1169 MACHINES—Drills—Automatic—

Bement, Miles & Co., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDowell, Stocker & Co., Chicago, Ill.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Pratt & Whitney Co., Hartford, Conn.  
 San Francisco Tool Works, San Francisco, Cal.  
 Wiley & Russell Manufacturing Co., Greenfield, Mass.

1170 MACHINES—Drills—Horizontal—

Bement, Miles & Co., Philadelphia, Pa.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 Illinois Iron and Bolt Co., Carpentersville, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDowell, Stocker & Co., Chicago, Ill.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

1171 MACHINES—Drills—Link—

Bement, Miles & Co., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDowell, Stocker & Co., Chicago, Ill.  
 Putnam Machine Co., Fitchburg, Mass.



- 1172 MACHINES—Drills—Reaming and Countersinking—  
Cleveland Punch and Shear Works Co., Cleveland, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Sellers & Co. (Inc.), Wm., Philadelphia, Pa.
- 1173 MACHINES—Drills—Self-Feeding—  
Barnes Co., W. F. & John, Rockford, Ill.  
Bement, Miles & Co., Philadelphia, Pa.  
Blaisdell & Co., P., Worcester, Mass.  
Fitchburg Machine Works, Fitchburg, Mass.  
Garvin Machine Co., Spring and Varick Sts., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
McDowell, Stocker & Co., Chicago, Ill.
- 1174 MACHINES—Drills—Upright—  
Barnes Co., W. F. & John, Rockford, Ill.  
Bement, Miles & Co., Philadelphia, Pa.  
Fitchburg Machine Works, Fitchburg, Mass.  
Hamilton Machine Tool Co., Hamilton, Ohio.  
Illinois Iron and Bolt Co., Carpentersville, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Knecht Bros., Cincinnati, Ohio.  
Lodge & Shipley Machine Tool Co., Cincinnati, Ohio.  
Niles Tool Works Co., Hamilton, Ohio.  
McDowell, Stocker & Co., Chicago, Ill.  
Pratt & Whitney Co., Hartford, Conn.  
Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.
- 1175 MACHINES—Dynamo Electric—  
Allfree Manufacturing Co., J. B., Indianapolis, Ind.  
Bernard Co., E. G., Troy, N. Y.  
Bullock Electric Manufacturing Co., Cincinnati, Ohio.  
Chester Steel Castings Co., 407 Library St., Philadelphia, Pa.  
Crescent Iron Works, Springfield, Mo.  
Diehl Manufacturing Co., Elizabethport, N. J.  
Hall & Son, Thomas, Boston, Mass.  
Hanson & Van Winkle Co., Newark, N. J.  
Keystone Electric Co., Erie, Pa.  
Ohio Electric Works, Cleveland, Ohio.  
Riker Electric Motor Co., 85 Washington St., Brooklyn, N. Y.
- 1176 MACHINES—Emery Wheel—  
Abrasive Material Co., Philadelphia, Pa.  
Diamond Machine Co., Providence, R. I.  
Forsaith Machine Co., S. C., Manchester, N. H.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Northampton Emery Wheel Co., 20 S. Canal St., Chicago, Ill.  
Norton Emery Wheel Co., Worcester, Mass.  
Palmer Hardware Manufacturing Co., Troy, N. Y.  
Sterling Emery Wheel Manufacturing Co., Tiffin, Ohio.
- 1177 MACHINES—Eye Benders—  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
McDowell, Stocker & Co., Chicago, Ill.  
Williams, White & Co., Moline, Ill.

1178 MACHINES—Forging—

CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Woonsocket Machine and Press Co., Woonsocket, R. I.

1179 MACHINES—Gaining—

Greenlee Bros. & Co., 225 W. 12th St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.

1180 MACHINES—Hoisting—

American Hoist and Derrick Co., St. Paul, Minn.  
 Aultman Co., Canton, Ohio.  
 Bacon, Earle C., Havemeyer Bldg., New York.  
 Bartlett & Co., Cleveland, Ohio.  
 Brown Hoisting and Conveying Machine Co., Cleveland, Ohio.  
 Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Carson Trench Machine Co., Boston, Mass.  
 Case Manufacturing Co., Columbus, Ohio.  
 Dobbie Foundry and Machine Co., 138 Dey St., New York.  
 Hersey Manufacturing Co., S. Boston, Mass.  
 Howard Foundry and Machine Works, Philadelphia, Pa.  
 Jeffrey Manufacturing Co., Columbus, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lambert Hoisting Engine Co., Newark, N. J.  
 Lidgerwood Manufacturing Co., 96 Liberty St., New York.  
 Lincoln Iron Works, Rutland, Vt.  
 Matteson & Williamson Manufacturing Co., Stockton, Cal.  
 Stearns-Rogers Manufacturing Co., Denver, Col.  
 Weber Gas and Gasoline Engine Co., Kansas City, Mo.  
 Western Machinery and Supply Co., 159 LaSalle St., Chicago, Ill.

1181 MACHINES—Hoisting—Coal—

Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.  
 Chain Belt Co., Milwaukee, Wis.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Link-Belt Engineering Co., Nicetown, Philadelphia, Pa.  
 Litchfield Car Works, Litchfield, Ill.  
 Ottumwa Iron Works, Ottumwa, Iowa.  
 Vulcan Iron Works, Wilkesbarre, Pa.

1182 MACHINES—Hoisting—Steam Power—

Brown Hoisting and Conveying Machine Co., Cleveland, Ohio.  
 Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.  
 Cardwell Machine Co., Richmond, Va.  
 Chisholm Steel Shovel Works, Cleveland, Ohio.  
 Contractors' Plant Manufacturing Co., 129 Erie St., Buffalo, N. Y.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Eastern Machinery Co., New Haven, Conn.  
 Fairmount Park Machine Co., 22d and Market Sts., Philadelphia.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Globe Iron Works Co., Spruce St., Cleveland, Ohio.  
 Kleckhefer Elevator Co., A., Milwaukee, Wis.

## 1182 MACHINES—Hoisting—Steam Power—Continued.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Milholland, J. & J. B., Pittsburg, Pa.  
 Otis Bros., 38 Park Row, New York.  
 Ottumwa Iron Works, Ottumwa, Iowa.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Thompson & Campbell, 1030 Germantown Ave., Chicago, Ill.  
 Vulcan Iron Works, Wilkesbarre, Pa.

## 1183 MACHINES—Ice—

Arctic Ice Co., 26 Pike Bldg., Cincinnati, Ohio.  
 Buffalo Refrigerating Machine Co., Buffalo, N. Y.  
 Columbus Iron Works Co., Columbus, Ga.  
 Creamery Pack. Manufacturing Co., W. Washington St., Chicago.  
 Fort Worth Iron Works, Fort Worth, Tex.  
 Frick Co., Waynesboro, Pa.  
 Hendrick Manufacturing Co. (Ltd.), Carbondale, Pa.  
 Murray Iron Works Co., Burlington, Iowa.  
 Nelson Manufacturing Co., N. O., 8th and Charles Sts., St. Louis.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.  
 Vilter Manufacturing Co., Milwaukee, Wis.  
 Vogt Machine Co., Henry, Louisville, Ky.

## 1184 MACHINES—Journal Box Shaping—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDowell, Stocker & Co., Chicago, Ill.  
 Newton Machine Tool Works (Inc.), 2347 Vine St., Philadelphia.

## 1185 MACHINES—Key Seating—

Baker Bros., Toledo, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Merritt Machinery Co., J. E., Lockport, N. Y.  
 Mitts & Merrill, East Saginaw, Mich.  
 Morton Manufacturing Co., Muskegon Heights, Mich.

## 1187 MACHINES—Lathes—Axle—

Armstrong Manufacturing Co., Bridgeport, Conn.  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Defiance Machine Works, Defiance, Ohio.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lodge & Shipley Machine Tool Co., Cincinnati, Ohio.  
 McDowell, Stocker & Co., Chicago, Ill.  
 New Haven Manufacturing Co., New Haven, Conn.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Pond Machine Tool Co., Plainfield, N. J.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

## 1188 MACHINES—Lathes—Bench—

Baird Machinery Co., U., Pittsburg, Pa.  
 Davis Machine Co., W. P., Rochester, N. Y.  
 Faneuil Watch Tool Co., Brighton, Boston, Mass.  
 Garvin Machine Co., Spring and Varick Sts., New York.  
 Hendey Machine Co., Torrington, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pratt & Whitney Co., Hartford, Conn.

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**1189 MACHINES—Lathes—Car Wheel—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Bement, Miles & Co., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

**1190 MACHINES—Lathes—Chucking—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Bullard Machine Tool Co., Bridgeport, Conn.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 Florence Machine Co., Florence, Mass.  
 Garvin Machine Co., Spring and Varick Sts., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lodge & Shipley Machine Tool Co., Cincinnati, Ohio.  
 Pratt & Whitney Co., Hartford, Conn.

**1191 MACHINES—Lathes—Combination—**

Baird Machinery Co., U., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pratt & Whitney Co., Hartford, Conn.

**1192 MACHINES—Lathes—Cutting-Off—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Hendey Machine Co., Torrington, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pond Machine Tool Co., Plainfield, N. J.  
 Pratt & Whitney Co., Hartford, Conn.

**1193 MACHINES—Lathes—Drill—**

American Tool and Machine Co., Boston, Mass.  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Diamond Machine Co., Providence, R. I.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 Garvin Machine Co., Spring and Varick Sts., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**1194 MACHINES—Lathes—Driving Wheel—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Betts Machine Co., Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Pond Machine Tool Co., Plainfield, N. J.  
 Putnam Machine Co., Fitchburg, Mass.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

**1195 MACHINES—Lathes—Engine—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Barnes Co., W. F. & John, Rockford, Ill.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Blaisdell & Co., P., Worcester, Mass.  
 Brown & Sharpe Manufacturing Co., Providence, R. I.  
 Bullard Machine Tool Co., Bridgeport, Conn.

1195 MACHINES—Lathes—Engine—Continued.

Dietz, Shumacher & Boye, Queen City and Buck Sts., Cincinnati.  
 Fifield Tool Co., Lowell, Mass.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 Forsaith Machine Co., S. C., Manchester, N. H.  
 Gleason Tool Co., Rochester, N. Y.  
 Gray Co., G. A., 481 Sycamore St., Cincinnati, Ohio.  
 Hendey Machine Co., Torrington, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lodge & Shipley Machine Tool Co., Cincinnati, Ohio.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Pond Machine Tool Co., Plainfield, N. J.  
 Pratt & Whitney Co., Hartford, Conn.  
 Putnam Machine Co., Fitchburg, Mass.  
 San Francisco Tool Works, San Francisco, Cal.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Seneca Falls Manufacturing Co., Seneca Falls, N. Y.

1196 MACHINES—Lathes—Engine—Foot Power—

Baird Machinery Co., U., Pittsburg, Pa.  
 Barnes Co., W. F. & John, Rockford, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New Haven Manufacturing Co., New Haven, Conn.  
 Seneca Falls Manufacturing Co., Seneca Falls, N. Y.

1197 MACHINES—Lathes—Foot Power—

Baird Machinery Co., U., Pittsburg, Pa.  
 Barnes Co., W. F. & John, Rockford, Ill.  
 Battle Creek Steam Pump Co., Battle Creek, Mich.  
 Garvin Machine Co., Spring and Varick Sts., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lodge & Shipley Machine Tool Co., Cincinnati, Ohio.  
 Reed Co., F. E., Worcester, Mass.  
 Sebastian Lathe Co., Cincinnati, Ohio.  
 Young Manufacturing Co., W. C., Worcester, Mass.

1198 MACHINES—Lathes—Hand—

Baird Machinery Co., U., Pittsburg, Pa.  
 Brown & Sharpe Manufacturing Co., Providence, R. I.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 Garvin Machine Co., Spring and Varick Sts., New York.  
 Grant Machine Tool Works, Cleveland, Ohio.  
 Hill, Clarke & Co., 156 Oliver St., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lodge & Shipley Machine Tool Co., Cincinnati, Ohio.  
 New Haven Manufacturing Co., New Haven, Conn.  
 Pratt & Whitney Co., Hartford, Conn.  
 Seneca Falls Manufacturing Co., Seneca Falls, N. Y.

1199 MACHINES—Lathes—Nut Tapping—

Baird Machinery Co., U., Pittsburg, Pa.  
 Brown & Co., H. B., East Hampton, Conn.  
 Chapman, H. L., Marcellus, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**1200 MACHINES—Lathes—Pattern Makers'—**

American Wood Working Machine Co., 141 Broadway, New York.  
 Baird Machinery Co., U., Pittsburg, Pa.  
 CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.

**1201 MACHINES—Lathes—Pulley Turning—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Bement, Miles & Co., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Merritt Machinery Co., J. E., Lockport, N. Y.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Pratt & Whitney Co., Hartford, Conn.  
 Prentice Bros. Co., Worcester, Mass.  
 Sellers & Co. (Inc.), Wm., Philadelphia, Pa.

**1202 MACHINES—Lathes—Screw Cutting—**

Baird Machinery Co., U., Pittsburg, Pa.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 Garvin Machine Co., Spring and Varick Sts., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lodge & Shipley Machine Tool Co., Cincinnati, Ohio.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Seneca Falls Manufacturing Co., Seneca Falls, N. Y.

**1203 MACHINES—Lathes—Special—**

Bement, Miles & Co., Philadelphia, Pa.  
 Brown & Sharpe Manufacturing Co., Providence, R. I.  
 Draper Machine Tool Co., Worcester, Mass.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 Jones & Lamson Machine Co., Springfield, Vt.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McMahon & Co., Worcester, Mass.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Pratt & Whitney Co., Hartford, Conn.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

**1204 MACHINES—Lathes—Wood Turning—**

American Wood Working Machine Co., 141 Broadway, New York.  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Battle Creek Steam Pump Co., Battle Creek, Mich.  
 Cordesman Machine Co., 27 Butler St., Cincinnati, Ohio.  
 Fay & Egan Co., J. A., Cincinnati, Ohio.  
 Fay & Scott, Dexter, Me.  
 Goodell & Waters, 3101 Chestnut St., Philadelphia, Pa.  
 Holmes Machinery Co., E. & B., Buffalo, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Ober Lathe Co., Chagrin Falls, Ohio.  
 Rogers & Co., C. B., Norwich, Conn.  
 Sebastian Lathe Co., Cincinnati, Ohio.  
 Seneca Falls Manufacturing Co., Seneca Falls, N. Y.  
 Trevor Manufacturing Co., Lockport, N. Y.  
 Williams & Co., D. W., Indianapolis, Ind.

- 1205 MACHINES—Locomotive Valve Setting—  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.
- 1206 MACHINES—Metal Straightening—  
 Blake & Johnson, Waterbury, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Pittsburg Manufacturing Co., Pittsburg, Pa.
- 1207 MACHINES—Metal Working—  
 Acme Machinery Co., 1125 Hamilton St., Cleveland, Ohio.  
 Baird Machinery Co., U., Water St., Pittsburg, Pa.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Bullard Machine Tool Co., The, Bridgeport, Conn.  
 CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 Cleveland Punch and Shear Works Co., The, Cleveland, Ohio.  
 Coulter & McKenzie Machine Co., Bridgeport, Conn.  
 Detrick & Harvey Machine Co., The, Baltimore, Md.  
 Fox Machinery Co., Grand Rapids, Mich.  
 Harrington, Son & Co. (Inc.), Edwin, 430 N. 15th St., Philadelphia, Pa.  
 Hill, Clarke & Co., 156 Oliver St., Boston, Mass.  
 Hilles & Jones Co., Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Long & Allstatter Co., The, Hamilton, Ohio.  
 Manning, Maxwell & Moore, 85 Liberty St., New York.  
 Marshall & Huschart Machinery Co., Chicago, Ill.  
 McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.  
 Pratt & Whitney Co., The, Hartford, Conn.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia.  
 Stow Manufacturing Co., Binghamton, N. Y.  
 Underwood & Co., H. B., 1025 Hamilton St., Philadelphia, Pa.  
 Watson-Stillman Co., 204 E. 43d St., New York.
- 1208 MACHINES—Milling—  
 Baird Machinery Co., U., 1123 Water St., Pittsburg, Pa.  
 Bement, Miles & Co., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.
- A1208 MACHINES—Molding—  
 Smith Machine Co., H. B., Smithville, N. J.
- 1209 MACHINES—Mortising—  
 Bentel & Margedant Co., Hamilton, Ohio.  
 CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 Fay & Egan Co., J. A., Cincinnati, Ohio.  
 Greenlee Bros. & Co., 225 W. 12th St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.

## 1210-1218

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### 1210 MACHINES—Multiple Spindle—

Barnes Co., W. F. & John, Rockford, Ill.

Bement, Miles & Co., Philadelphia, Pa.

Bickford Drill and Tool Co., Cincinnati, Ohio.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Newton Machine Tool Works, 2347 Vine St., Philadelphia, Pa.

Niles Tool Works Co., Hamilton, Ohio.

Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

### 1211 MACHINES—Numbering and Perforating—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Woodman Mfg. and Supply Co., The, 63 Oliver St., Boston, Mass.

### 1212 MACHINES—Nut—

Bement, Miles & Co., Philadelphia, Pa.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

National Machinery Co., Tiffin, Ohio.

Niles Tool Works Co., Hamilton, Ohio.

### 1213 MACHINES—Nut Facers—

Detrick & Harvey Machine Co., The, Baltimore, Md.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

### 1214 MACHINES—Nut Tappers—

Bement, Miles & Co., Philadelphia, Pa.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

### 1215 MACHINES—Painting—Pneumatic—

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago, Ill. See ad. page B 2.

Garry Iron and Steel Roofing Co., Cleveland, Ohio.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

MacLeod & Clark, 457 E. Front St., Cincinnati, Ohio.

Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

### 1216 MACHINES—Pipe Cutting—

Brass and Iron Works Co., Fostoria, Ohio.

Cox & Sons Co., 215 Race St., Philadelphia, Pa.

Curtis & Curtis, Bridgeport, Conn.

Hart Manufacturing Co., Cleveland, Ohio.

Jarrecki Manufacturing Co., Erie, Pa.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Merrell Manufacturing Co., 502 Curtis St., Toledo, Ohio.

### 1217 MACHINES—Pipe Nipple—

Brass and Iron Works Co., Fostoria, Ohio.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Merrell Manufacturing Co., 502 Curtis St., Toledo, Ohio.

### 1218 MACHINES—Pipe Threading—

American Tube and Iron Co., Youngstown, Pa.

Armstrong Manufacturing Co., Bridgeport, Conn.

Cox & Sons Co., 215 Race St., Philadelphia, Pa.



**1218 MACHINES—Pipe Threading—Continued.**

Curtis & Curtis, Bridgeport, Conn.  
 Eaton, Cole & Burnham Co., 253 Broadway, New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Merrell Manufacturing Co., 502 Curtis St., Toledo, Ohio.  
 Nelson Manufacturing Co., N. O., St. Louis, Mo.  
 Saunder's Sons, D., Yonkers, N. Y.  
 Sterritt & Thomas, Pittsburg, Pa.

**1220 MACHINES—Planers—Metal—**

American Tool Works Co., Cincinnati, Ohio.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Blaisdell & Co., P., Worcester, Mass.  
 Cleveland Punch and Shear Works Co., The, Cleveland, Ohio.  
 Defiance Machine Works, Defiance, Ohio.  
 Draper Machine Tool Co., Worcester, Mass.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 Gray Co., G. A., Cincinnati, Ohio.  
 Hendy Machine Works, Joshua, San Francisco, Cal.  
 Hiles & Jones Co., Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lodge & Shipley Machine Tool Co., Cincinnati, Ohio.  
 Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Pedrick & Ayer Co., 1001 Hamilton St., Philadelphia, Pa.  
 San Francisco Tool Works, San Francisco, Cal.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

**1221 MACHINES—Planers—Rail—**

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

**1222 MACHINES—Planers—Rotary—**

Bement, Miles & Co., Philadelphia, Pa.  
 Cleveland Punch and Shear Works Co., The, Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

**1223 MACHINES—Planers—Switch and Frog—**

Bement, Miles & Co., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.

**1224 MACHINES—Planers—Wood—**

Bentel & Margedant Co., Hamilton, Ohio.  
 Berlin Machine Works, Beloit, Wis.  
 CARSD BROS. CO., Chicago, Ill. See ad. page A 3.  
 Cordesman Machine Co., 27 Butler St., Cincinnati, Ohio.  
 De Loach Mill Manufacturing Co., Atlanta, Ga.  
 Fay & Egan Co., J. A., Cincinnati, Ohio.  
 Forsaith Machine Co., S. C., Manchester, N. H.  
 Holmes Machinery Co., E. & B., Rochester, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Salem Iron Works, Salem, N. C.  
 Smith Machine Co., H. B., Smithville, N. J.  
 Whitcomb Manufacturing Co., Worcester, Mass.  
 Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.

1225 MACHINES—Plate Bending—

Bement, Miles & Co., Philadelphia, Pa.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

A1225 MACHINES—Power Transmission—

Link-Belt Machinery Co., Chicago, Ill.

1226 MACHINES—Presses—Drill—

Baird Machinery Co., U., 1123 Water St., Pittsburg, Pa.

Baker Bros., Toledo, Ohio.

Barnes Co., W. F. & John, Rockford, Ill.

Bement, Miles & Co., Philadelphia, Pa.

Fitchburg Machine Works, Fitchburg, Mass.

Forsyth Machine Co., S. C., Manchester, N. H.

Gould & Eberhardt, Newark, N. J.

Hamilton Machine Tool Co., Hamilton, Ohio.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Newton Machine Tool Works (Inc.), 2347 Vine St., Philadelphia.

Niles Tool Works Co., Hamilton, Ohio.

Sellers & Co. (Inc.), Wm., Philadelphia, Pa.

Silver Manufacturing Co., Salem, Ohio.

1227 MACHINES—Presses—Hydraulic—

Allentown Foundry and Machine Works, Allentown, Pa.

Bement, Miles & Co., Philadelphia, Pa.

Brennan & Co., Louisville, Ky.

Cleveland Punch and Shear Works Co., The, Cleveland, Ohio.

Coleman, H. Dudley, New Orleans, La.

Crews & Westbrook, Danville, Va.

Davenport Foundry and Machine Co., Davenport, Iowa.

Dederick's Sons, P. K., Albany, N. Y.

Dickson Manufacturing Co., Scranton, Pa.

Dudgeon, Richard, 24 Columbia St., New York.

Howard Foundry and Machine Works, Philadelphia, Pa.

Illinois Iron and Bolt Co., Carpentersville, Ill.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.

McGowan Co., John H., Cincinnati, Ohio.

Niles Tool Works Co., Hamilton, Ohio.

Phoenix Iron Foundry, Providence, R. I.

Poole & Son Co., Robert, Baltimore, Md.

Riehle Bros. Testing Machine Co., 1424 N. 9th St., Philadelphia.

Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.

Walker Co., Cleveland, Ohio.

Waterbury Farrel Foundry and Machine Co., Waterbury, Conn.

Watson-Stillman Co., 204 E. 43d St., New York.

1228 MACHINES—Presses—Punching—

Bliss Co., E. W., Plymouth St., Brooklyn, N. Y.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Lang Co., E. M., Portland, Me.

Long & Allstatler Co., Hamilton, Ohio.

Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.

Pratt & Whitney Co., Hartford, Conn.

Watson-Stillman Co., 204 E. 43d St., New York.

Wiley & Russell Manufacturing Co., Greenfield, Mass.

1232 MACHINES—Punches—

Bement, Miles & Co., Philadelphia, Pa.  
 CARSE BROS. Co., Chicago, Ill. See ad. page A 3.  
 Cleveland Punch and Shear Works Co., Cleveland, Ohio.  
 Fulton Iron and Engine Works, Detroit, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Randall & Co., Cincinnati, Ohio.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Watson-Stillman Co., 204 E. 43d St., New York.

1233 MACHINES—Punches—Hydraulic—

Cleveland Punch and Shear Co., Cleveland, Ohio.  
 Dudgeon, Richard, 24 Columbia St., New York.  
 Long & Allstatter Co., Hamilton, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
 Watson-Stillman Co., 204 E. 43d St., New York.  
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

1234 MACHINES—Punches and Shears—Power—

Bement, Miles & Co., Philadelphia, Pa.  
 Buffalo Forge Co., Buffalo, N. Y.  
 CARSE BROS. CO., Wabash Ave., Chicago, Ill. See ad. page A 3.  
 Cleveland Punch and Shear Works Co., Cleveland, Ohio.  
 Colton & Co., G. D., Galesburg, Ill.  
 Frank-Kneeland Machine Co., Pittsburg, Pa.  
 Hilles & Jones Co., Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Long & Allstatter Co., Hamilton, Ohio.  
 Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.  
 National Machinery Co., Tiffin, Ohio.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.  
 Toledo Machine and Tool Co., Toledo, Ohio.  
 West Manufacturing Co., Buffalo, N. Y.  
 Wickes Bros., Saginaw, Mich.  
 Williams, White & Co., Moline, Ill.

1235 MACHINES—Rail Cutting—

Industrial Works, Bay City, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1236 MACHINES—Rail Punching—

Dickson Manufacturing Co., Scranton, Pa.  
 Forsaith Machine Co., S. C., Manchester, N. H.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Whitcomb Manufacturing Co., Worcester, Mass.

1237 MACHINES—Rail Sawing—Hydraulic—

Dickson Manufacturing Co., Scranton, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Q. & C., Co., 700 Western Union Bldg., Chicago, Ill.

- 1238 MACHINES—Rail Straightening—Hydraulic—  
Dickson Manufacturing Co., Scranton, Pa.  
Industrial Works, Bay City, Mich.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Watson-Stillman Co., 204 E. 43d St., New York.
- 1239 MACHINES—Riveting—Compression—  
CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago.  
Ill. See ad. page B 2.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 1240 MACHINES—Riveting—Hydraulic—  
Bement, Miles & Co., Philadelphia, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Morgan Engineering Co., Alliance, Ohio.  
Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
Watson-Stillman Co., 204 E. 43d St., New York.  
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
- 1241 MACHINES—Riveting—Pneumatic—  
Albree Iron Works, Chester B., 14 Market St., Allegheny, Pa.  
CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago.  
Ill. See ad. page B 2.  
Cleveland Punch and Shear Works Co., The, Cleveland, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
MacLeod & Clark, 457 E. Front St., Cincinnati, Ohio.  
Manning, Maxwell & Moore, 85 Liberty St., New York.  
Philadelphia Pneumatic Tool Co., Philadelphia, Pa.  
Q. & C. Co., 700 Western Union Bldg., Chicago, Ill.  
Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
Standard Pneumatic Tool Co., Chicago, Ill.  
Standard Railway Equipment Co., St. Louis, Mo.
- 1244 MACHINES—Rivet Heading—  
Acme Machinery Co., The, Cleveland, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 1245 MACHINES—Road—  
American Road Machine Co., Kenneth Square, Pa.  
Austin Manufacturing Co., F. C., Harvey, Ill.  
Fleming Manufacturing Co., Fort Wayne, Ind.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Western Wheeled Scraper Co., Aurora, Ill.
- 1246 MACHINES—Rolls—Plate Bending—  
Bement, Miles & Co., Philadelphia, Pa.  
Cleveland Punch and Shear Works Co., Cleveland, Ohio.  
Dickson Manufacturing Co., Scranton, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
New Doty Manufacturing Co., Jamesville, Wis.  
Niles Tool Works Co., Hamilton, Ohio.  
Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

## 1247 MACHINES—Rolls—Vertical Bending—

Cleveland Punch and Shear Works Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

## 1248 MACHINES—Sand Papering—

Fay & Egan Co., J. A., Cincinnati, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Smith Machine Co., H. B., Smithville, N. J.

## 1250 MACHINES—Sawing—Band—

American Wood Working Machine Co., 141 Broadway, New York.  
 Bentel & Margedant Co., Hamilton, Ohio.  
 Colladay, Joseph O., 626 Race St., Philadelphia, Pa.  
 Cordesman Machine Co., 27 Butler St., Cincinnati, Ohio.  
 Fay & Egan Co., J. A., Cincinnati, Ohio.  
 Goodell & Waters, 3101 Chestnut St., Philadelphia, Pa.  
 Hendy Machine Works, Joshua, San Francisco, Cal.  
 Holmes Machinery Co., E. & B., Buffalo, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.  
 Palmer, Parker & Co., 133 Portland St., Boston, Mass.  
 Silver Manufacturing Co., Salem, Ohio.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Smith Machine Co., H. B., Smithville, N. J.  
 Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.

## 1251 MACHINES—Sawing—Circular—

American Wood Working Machine Co., 141 Broadway, New York.  
 Bangor Foundry and Machine Co., Bangor, Me.  
 Bentel & Margedant Co., Hamilton, Ohio.  
 Crosby & Co., G. A., 176 S. Clinton St., Chicago, Ill.  
 Defiance Machine Works, Defiance, Ohio.  
 Goodell & Waters, 3101 Chestnut St., Philadelphia, Pa.  
 Gray's Sons, A. W., Middletown Springs, Vt.  
 Holmes Machinery Co., E. & B., Buffalo, N. Y.  
 Howell & Co., R. R., Minneapolis, Minn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lane Manufacturing Co., Montpelier, Vt.  
 Marshall & Huschart Machinery Co., Chicago, Ill.  
 Seneca Falls Manufacturing Co., Seneca Falls, N. Y.  
 Smalley Manufacturing Co., Manitowoc, Wis.  
 Stover Manufacturing Co., Freeport, Ill.  
 U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad.  
 page A 2.  
 Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.

## 1252 MACHINES—Sawing—Cold—

Cleveland Punch and Shear Works Co., The, Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Newton Machine Tool Works, 2347 Vine St., Philadelphia, Pa.  
 Q. & C. Co., Chicago, Ill.

1253 MACHINES—Sawing—Cut-off—

American Wood Working Machine Co., 141 Broadway, New York.  
 Fay & Egan Co., J. A., Cincinnati, Ohio.  
 Holmes Machinery Co., E. & B., Buffalo, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Power & Co., L., 20 S. 23d St., Philadelphia, Pa.  
 Smith Machine Co., H. B., Smithville, N. J.  
 Witherby, Rugg & Richardson, Worcester, Mass.  
 Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.

1254 MACHINES—Sawing—Rip—

American Wood Working Machine Co., 141 Broadway, New York.  
 Bentel & Margedant Co., Hamilton, Ohio.  
 Berlin Machine Works, Beloit, Wis.  
 Cordesman Machine Co., 27 Butler St., Cincinnati, Ohio.  
 Fay & Egan Co., The J. A., Cincinnati, Ohio.  
 Goodell & Waters, 3101 Chestnut St., Philadelphia, Pa.  
 Holmes Machinery Co., E. & B., Buffalo, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lane Manufacturing Co., Montpelier, Vt.  
 Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.  
 Marston & Co., J. M., 226 Ruggles St., Boston, Mass.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Smith Machine Co., H. B., Smithville, N. J.  
 Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.

1255 MACHINES—Scale Testing—

Buffalo Scale Co., Buffalo, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1256 MACHINES—Shapers—Iron—

American Tool Works Co., Cincinnati, Ohio.  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 Fox Machinery Co., Grand Rapids, Mich.  
 Garvin Machine Co., 137 Varick St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lodge & Shipley Machine Tool Co., Cincinnati, Ohio.  
 Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.  
 Niles Tool Works Co., Hamilton, Ohio.  
 Pratt & Whitney Co., Hartford, Conn.  
 San Francisco Tool Works, San Francisco, Cal.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

1257 MACHINES—Shapers—Wood—

American Wood Working Machine Co., 141 Broadway, New York.  
 Baird Machinery Co., U., Pittsburg, Pa.  
 Battle Creek Steam Pump Co., Battle Creek, Mich.  
 Bentel & Margedant Co., Hamilton, Ohio.  
 Cordesman Machine Co., 27 Butler St., Cincinnati, Ohio.  
 Goodell & Waters, 3101 Chestnut St., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Ober Lathe Co., Chagrin Falls, Ohio.  
 Rogers & Co., C. B., Norwich, Conn.  
 Smith Machine Co., H. B., Smithville, N. J.  
 Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.

**1258 MACHINES—Shears—Foot—**

Baird Machinery Co., U., Pittsburg, Pa.  
Bliss Co., E. W., Plymouth St., Brooklyn, N. Y.  
CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Long & Allstatter Co., Hamilton, Ohio.  
National Machinery Co., Tiffin, Ohio.  
Stiles Press Co., Watertown, N. Y.

**1259 MACHINES—Shears—Metal—**

Acme Shear Co., Bridgeport, Conn.  
Bement, Miles & Co., Philadelphia, Pa.  
Buffalo Forge Co., Buffalo, N. Y.  
Carlin's Sons, Thomas, Allegheny, Pa.  
CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
Cleveland Punch and Shear Works Co., The, Cleveland, Ohio.  
Fulton Iron and Engine Works, Detroit, Mich.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Peck, Stow & Wilcox Co., Southington, Conn.  
Robinson & Rea Manufacturing Co., Pittsburg Pa.  
Sellers & Co. (Inc.), Wm., Philadelphia, Pa.  
Taplin, Rice & Co., Akron, Ohio.  
Walker Co., Cleveland, Ohio.

**1260 MACHINES—Slotting—**

Bement, Miles & Co., Philadelphia, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

**1261 MACHINES—Stay Bolt Cutters and Nippers—Pneumatic—**

CHICAGO PNEUMATIC TOOL CO., Chicago. See ad. page B 2.  
Helwig Manufacturing Co., The, St. Paul, Minn.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Standard Pneumatic Tool Co., Marquette Bldg., Chicago, Ill.

**1262 MACHINES—Steam Riveting—**

Bement, Miles & Co., Philadelphia, Pa.  
Hartman Manufacturing Co., 277 Broadway New York  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Morgan Engineering Co., Alliance, Ohio.  
Niles Tool Works Co., Hamilton, Ohio.  
Providence Steam Engine Co., Providence, R. I.  
Sellers & Co. (Inc.), Wm., Philadelphia, Pa.  
Shuster Co., F. B., New Haven, Conn.  
Standard Rivet Co., 41 Lincoln St., Boston, Mass.

**1263 MACHINES—Straightening—**

Bement, Miles & Co., Philadelphia, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

**1264 MACHINES—Taper Rolling—**

Coulter & McKenzie Co., The, Bridgeport, Conn.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Williams, White & Co., Moline, Ill.

1265 MACHINES—Tapping—

Brass and Iron Works Co., Fostoria, Ohio.  
Brown & Sharpe Manufacturing Co., Providence, R. I.  
Garvin Machine Co., 137 Varick St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Mueller Manufacturing Co., H. Decatur, Ill.  
National Machinery Co., Tiffin, Ohio.  
Oil City Boiler Works (Inc.), Oil City, Pa.  
Pratt & Whitney Co., Hartford, Conn.  
Stow Manufacturing Co., Binghamton, N. Y.  
Walworth Manufacturing Co., Boston, Mass.

1266 MACHINES—Tenoning—

Bentel & Margedant Co., Hamilton, Ohio.  
Fay & Egan Co., J. A., Cincinnati, Ohio.  
Greenlee Bros. & Co., 225 W. 12th St., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Smith Machine Co., H. B., Smithville, N. J.  
Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.

1267 MACHINES—Threading—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
National Machinery Co., Tiffin, Ohio.  
Saunders' Sons, D., Yonkers, N. Y.  
Waterbury Farrel Foundry and Machine Co., Waterbury, Conn.

1268 MACHINES—Turning—Iron—

Bullard Machine Tool Co., The, Bridgeport, Conn.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1269 MACHINES—Welding—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Long & Allstatter Co., Hamilton, Ohio.

1270 MACHINES—Well—

American Well Works, Aurora, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1271 MACHINES—Whitewashing and Kalsomining—Portable—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
MacLeod & Clark, 457 E. Front St., Cincinnati, Ohio.

A1271 MACHINES—Wood Trimmers—

American Machinery Co., Grand Rapids, Mich.

1272 MACHINES—Wood Working—

Atlantic Works, Philadelphia, Pa.  
Baird Machinery Co., U., 1123 Water St., Pittsburg, Pa.  
Bement, Miles & Co., Philadelphia, Pa.  
Bentel & Margedant Co., Hamilton, Ohio.  
CARSE BROS. CO., 64 Wabash Ave., Chicago. See ad. page A 3.  
Fay & Egan Co., J. A., Cincinnati, Ohio.  
Fox Machinery Co., Grand Rapids, Mich.  
Greenlee Bros. & Co., 225 W. 12th St., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Niles Tool Works, Hamilton, Ohio.  
Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
Wood Machine Co., S. A., 64 Wabash Ave., Chicago, Ill.



A1272 MACHINERY—Saw Mill—

CHANDLER & TALOR CO., Indianapolis, Ind.

SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.

1273 MAIL CATCHERS—

Haus Iron Mail Crane Co., The, New Albany, Ind.

Taylor & Boggis Foundry Co., The, Cleveland, Ohio.

1274 MAIL CRANES—

Haus Iron Mail Crane Co., The, New Albany, Ind.

1275 MALLETS—

Boston & Lockport Block Co., 142 Commercial St., Boston, Mass.

Bostwick-Braun Co., The, Toledo, Ohio.

Buck Manufacturing Co., M. M., St. Louis, Mo.

Oahill, Swift & Co., St. Louis, Mo.

Crerar, Adams & Co., Chicago, Ill.

Dwight, E. P., 407 Sansom St., Philadelphia, Pa.

Haines, Jones & Cadbury Co., Philadelphia, Pa.

Hibbard, Spencer, Bartlett & Co., Chicago, Ill.

Holbrook, A. & C. W., Providence, R. I.

Hunt Co., C. W., 45 Broadway, New York.

James & Co. (Inc.), Chattanooga, Tenn.

Linley Supply Co., Ezra H., St. Louis, Mo.

Louisville Car Wheel and Railway Supply Co., Louisville, Ky.

New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.

Ohio Tool Co., Columbus, Ohio.

Piqua Handle and Manufacturing Co., Piqua, Ohio.

Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.

Sherburne & Co., 53 Oliver St., Boston, Mass.

Stanley Rule and Level Co., New Britain, Conn.

West Manufacturing Co., Buffalo, N. Y.

ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1276 MANDRELS—Lathe Expanding—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Nicholson & Co., W. H., Wilkesbarre, Pa.

1277. MAPS—

Andrews Co., A. H., 304 Wabash Ave., Chicago, Ill.

Bien & Co., Julius, 140 6th Ave., New York.

Bridgman, E. C., 84 Warren St., New York.

Burford, Wm. B., Indianapolis, Ind.

Colton, Ohman & Co., 15 Warren St., New York.

Grand Rapids School Furniture Co., Grand Rapids, Mich.

Matthews-Northrup Co., Buffalo, N. Y.

Rand-Avery Supply Co., Boston, Mass.

Rand, McNally & Co. (Inc.), 168 Adams St., Chicago, Ill.

Smith, John L., 27 S. 6th St., Philadelphia, Pa.

Strobridge Lithographic Co., Cincinnati, Ohio.

1278 MARBLE—

Burlington Manufacturing Co., Burlington, Vt.

Klaber, Adolph, 238 E. 57th St., New York.

Le Grand Quarry Co., Marshalltown, Ia.

Nelson Mfg. Co., N. O., 8th and St. Charles Sts., St. Louis, Mo.

1278 MARBLE—Continued.

Nolta Consolidated Marble, Iron and Talc. Co., Kinsey, N. C.  
Sharpless & Watts, 1522 Chestnut St., Philadelphia, Pa.  
Sherman & Flavin, 2505 State St., Chicago, Ill.  
Townsend, Wm. C., Zanesville, Ohio.

1297 MATS—Asbestos—

Johns Manufacturing Co., H. W., 100 William St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1280 MATS—Flexible Wood—

Beadle, Edward, 1193 Broadway, New York.  
Toffler, A., 733 1st Ave., New York.

1281 MATS—Iron and Steel—

New York Steel Mat Co., Jersey City, N. J.  
Q. & C. Co., 700 Western Union Bldg., Chicago, Ill.  
Toffler, A., 733 1st Ave., New York.  
Van Dorn Iron Works Co., Cleveland, Ohio.

1282 MATS—Rattan—

Heywood Bros. & Wakefield Co., 297 Cherry St., New York.

1283 MATS—Rubber—

Boston Belting Co., 256 Devonshire St., Boston, Mass.  
Clapp Rubber Co., E. H., 7 Otis St., Boston, Mass.  
Crescent Belting and Packing Co., Trenton, N. J.  
Goodrich Co., B. F., Akron, Ohio.  
Goodyear Rubber Co., 787 Broadway, New York.  
New Jersey Car Spring and Rubber Co., Jersey City, N. J.  
New York Belting and Packing Co., 25 Park Place, New York.  
Revere Rubber Co., 63 Franklin St., Boston, Mass.  
Trenton Rubber Co., Trenton, N. J.

1284 MATS—Wire—

Barbee Wire and Iron Works, 44 Dearborn St., Chicago, Ill.  
Barnum, E. T., Detroit, Mich.  
Detroit Safe Co., Detroit, Mich.  
Hartford Woven Wire Mattress Co., Hartford, Conn.  
Minneapolis Wire and Iron Works (Inc.), Minneapolis, Minn.  
Page Woven Wire Fence Co., Adrian, Mich.

1285 MATTING—Rubber—

American Supply Manufacturing Co., 20 Warren St., New York.  
Boston Belting Co., 256 Devonshire St., Boston, Mass.  
Boston Woven Hose and Rubber Co., Boston, Mass. Fred'k Swift  
& Co., Agents, Old Colony Bldg., Chicago, Ill.  
Crescent Belting and Packing Co., Trenton, N. J.  
Goodrich Co., B. F., Akron, Ohio.  
Home Rubber Co., Trenton, N. J.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
New Jersey Car Spring and Rubber Co., Jersey City, N. J.  
New York Belting and Packing Co., 25 Park Place, New York.

1286 MATTRESSES—Sleeping Car—

McKay Curtain Co., Wilmington, Del.  
Ostermoor & Son, H. D., 116 Elizabeth St., New York.

## 1287 MAULS—Railroad—

Atha Tool Co., Newark, N. J.  
 Billings & Spencer Co., Hartford, Conn.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Cheney Hammer Co., Henry, Little Falls, N. Y.  
 Collins Co., Collinsville, Conn.  
 Grerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hammond & Son, C., Ogontz, Pa.  
 Harvey, H. H., Boston, Mass.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt & Co., C. W., 45 Broadway, New York.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 James & Co (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pedrick & Ayer Co., 1001 Hamilton St., Philadelphia, Pa.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Plumb, Fayette R., Tucker and James Sts., Philadelphia, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Vaughan & Bushnell Mfg. Co., 877 Carroll Ave., Chicago, Ill.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 1289 MEASURES—Tape—

Bradley & Hubbard Manufacturing Co., Meriden, Conn.  
 Eddy & Co., George M., 353 Classon Ave., Brooklyn, N. Y.  
 Keuffel & Esser Co., 127 Fulton St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lufkin Rule Co., Saginaw, Mich.

## 1290 MENDERS—Hose—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Somer's Sons, John, Newark, N. J.

## 1291 METALS—Perforated—

Aitchison Perforated Metal Co., Robert, 303 Dearborn St., Chicago, Ill.  
 Beckley & Co., A. J., Garwood, N. J.  
 Clinton Wire Cloth Co., Clinton, Mass.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Harrington & King Perforating Co., The, Chicago, Ill.  
 Hendricks Manufacturing Co. (Ltd.), Carbondale, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Novelty Manufacturing Co., Waterbury, Conn.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

## 1292 METERS—Gas—

Buhl Stamping Co., Detroit, Mich.  
 Helme & McIlheny, 1339 Cherry St., Philadelphia, Pa.  
 Hersey Manufacturing Co., South Boston, Mass.

**1292 METERS—Gas—**

McDonald & Co., D., Albany, New York.  
 National Meter Co., 84 Chambers St., New York.  
 Pittsburg Meter Co., E. Pittsburg, Pa.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.

**1293 METERS—Water—**

Gilbert & Barker Manufacturing Co., 82 John St., New York.  
 Hersey Manufacturing Co., South Boston, Mass.  
 National Meter Co., 84 Chambers St., New York.  
 Pittsburg Meter Co., E. Pittsburg, Pa.  
 San Francisco Tool Works, San Francisco, Cal.  
 Thomson Meter Co., 79 Washington St., Brooklyn, N. Y.  
 Worthington Pumping Engine Co., 120 Liberty St., New York.

**1294 MILLS—Paint and Color—**

Allentown Foundry and Machine Works, Allentown, Pa.  
 Bartlett & Co., C. O., Cleveland, Ohio.  
 Berrill's Sons, J. A., Waterville, N. Y.  
 Bradley Fertilizer Co., 27 Kilby St., Boston, Mass.  
 Day & Co., J. H., Harrison Ave. and Bogen St., Cincinnati, Ohio.  
 Harrison, Leonard D., New Haven, Conn.  
 Howard Foundry and Machine Works, 1744 Ludlow St., Philadelphia, Pa.  
 Nordyke & Marmon Co., Indianapolis, Ind.  
 Noye Manufacturing Co., John T., Buffalo, N. Y.  
 Poole & Son Co., Robert, Baltimore, Md.  
 Sprout, Waldron & Co., Muncy, Pa.  
 Taylor & Co. (Inc.), 429 Driggs Ave., Brooklyn, N. Y.

**1295 MILLBOARDS—Asbeston—**

Carey Manufacturing Co., The Philip, Cincinnati, Ohio.  
 Franklin Manufacturing Co., Franklin, Pa.  
 Johns Manufacturing Co., H. W., 100 Williams St., New York.  
 Keasbey & Mattison Co., Ambler, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Watson Co., H. F., Erie, Pa.

**1296 MILLING CUTTERS—**

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pratt & Whitney Co., The, Hartford, Conn.  
 Standard Tool Co., The, Cleveland, Ohio.

**1297 MINERAL WOOL—**

Baker & Adamson Chemical Co., Easton, Pa.  
 Chicago Fire Proof Covering Co., 48 Franklin St., Chicago, Ill.  
 Johns Manufacturing Co., W. H., 100 Williams St., New York.  
 Manville Covering Co., Milwaukee, Wis.  
 New York Fire Proof Covering Co., 26 Cortlandt St., New York.  
 Western Mineral Wool Co., Cleveland, Ohio.

**1298 MIRRORS—**

Benedict Manufacturing Co., M. S., E. Syracuse, N. Y.  
 Florence Manufacturing Co., Florence, Mass.  
 Hargreaves Manufacturing Co., Detroit, Mich.  
 Judd & Co., H. L., 87 Chambers St., New York.  
 Van Horne, Griffen & Co., Ventry and Greenwich Sts., New York.

**1299 MIXERS—Concrete—**

GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.

See ad. page A 2.

McKelvey Concrete Machine Co., 159 LaSalle St., Chicago, Ill.

Ransom & Smith Co., 149 Broadway, N. Y.

**1300 MIXERS—Paint—**

Day & Co., J. H., Harrison Ave. and Borgen St., Cincinnati, Ohio.

Houchin & Huber, 39 53d St., Brooklyn, N. Y.

Poole & Son Co., Robert, Baltimore, Md.

Waterville Foundry & Manufacturing Co., Waterville, N. Y.

**1301 MOTORS—Electric—**

Akron Electrical Manufacturing Co., Akron, Ohio.

Armitage & Herschell Co., North Tonawanda, N. Y.

Bullock Electric Manufacturing Co., Cincinnati, Ohio.

Commercial Electric Co., Indianapolis, Ind.

Crescent Iron Works, Springfield, Mo.

Dallet & Co., Thomas H., York St., Philadelphia, Pa.

Eddy Electric Manufacturing Co., Windsor, Conn.

Elwell-Parker Electric Co., Cleveland, Ohio.

Emerson Electric Manufacturing Co., St. Louis, Mo.

Erie City Iron Works, Erie, Pa.

Ft. Wayne Electric Corporation, Ft. Wayne, Ind.

Hobart Electric Manufacturing Co., Troy, N. Y.

Jenny Electric Manufacturing Co., Indianapolis, Ind.

Manhattan Machinery Co., 95 Liberty St., New York.

Roth Bros. & Co., 28 Market St., Chicago, Ill.

Thompson-Houston Electric Co., Boston, Mass.

Westinghouse Electric and Manufacturing Co., Pittsburg, Pa.

**1302 MOTORS—Elevator, Electric—**

Westinghouse Electric and Manufacturing Co., Pittsburg, Pa.

**1303 MOTORS—Fan, Electric—**

Westinghouse Electric and Manufacturing Co., Pittsburg, Pa.

**1304—MOTORS—Gasoline—**

American Motor Co., 32 Broadway, N. Y.

Munson Co., La Porte, Ind.

Wolverine Motor Works, Grand Rapids, Mich.

**1305 MOTORS—Street and Railway—Electric—**

General Electric Co., Schenectady, N. Y.

Lorraine Steel Co., Lorain, Ohio.

Thompson-Houston Electric Co., Boston, Mass.

Westinghouse Electric and Manufacturing Co., Pittsburg, Pa.

**1306 MOTORS—Street and Railway—Steam—**

Baldwin Locomotive Works, 500 N. Broad St., Philadelphia, Pa.

Dickson Manufacturing Co., Scranton, Pa.

Porter Co., H. K., Pittsburg, Pa.

1307 MOTORS—Water—

American Impulse Wheel Co., 120 Liberty St., New York.  
 Belknap Motor Co., Portland, Me.  
 Cleveland Faucet Co., Cleveland, Ohio.  
 Davis Co., The John, 51 Michigan St., Chicago, Ill.  
 Hunter Fan and Motor Co., Fulton, N. Y.  
 Leffel & Co., James, Springfield, Ohio.  
 Racine Malleable and Wrought Iron Co., Racine, Wis.  
 Ross Valve Co., Troy, N. Y.

1308 NAILS—Cut—

American Ring Co., Waterbury, Conn.  
 Atlas Tack Corporation, Taunton, Mass.  
 Bailey & Co., Chas. L. (Inc.), Harrisburg, Pa.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Bruce & Cook, 190 Water St., New York.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Cumberland Nail and Iron Co., 207 Walnut St., Philadelphia, Pa.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Kohler & Co., F. E., Canton, Ohio.  
 La Belle Iron Works, Wheeling, W. Va.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 Mahoning Valley Iron Co., Youngstown, Ohio.  
 Milwaukee Tack Co., Milwaukee, Wis.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Old Dominion Iron and Nail Works Co., Richmond, Va.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Republic Iron and Steel Co., Chicago, Ill.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZBLNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1309 NAILS—Wire—

AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill.  
 See ad. inside front cover.  
 American Wire Nail Co., Anderson, Ind.  
 Baker & Co., Charles F., 50 Lincoln St., Boston, Mass.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Chicago Tack Co., 7800 Woodlawn St., Chicago, Ill.  
 Cleveland Rolling Mill Co., Cleveland, Ohio.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Ellwood Wire and Nail Co., DeKalb, Ill.  
 Grand Crossing Tack Co., Grand Crossing, Ill.  
 H. P. Nail Co., Cleveland, Ohio.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.

## 1309 NAILS—Wire—Continued.

Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 Marland, Neely & Co. (Ltd.), Pittsburg, Pa.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Oliver Wire Co., Pittsburg, Pa.  
 Page Woven Wire Fence Co., Adrian, Mich.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Pittsburg Wire Co., Pittsburg, Pa.  
 Quincy Hardware Manufacturing Co., Quincy, Ill.  
 Salem Wire Nail Co., Salem, Ohio.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 1310 NAPHTHA—

American Oil Works (Ltd.), Titusville, Pa.  
 Barrett Manufacturing Co., 290 Broadway, New York.  
 Climax Oil Manufacturing Co., Titusville, Pa.  
 Standard Oil Co. of New York, 26 Broadway, New York.

## 1311 NIPPLES—Hose—

Belknap Manufacturing Co., Bridgeport, Conn.  
 Boston Brass Co., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 1312 NOZZLES—Hose—

Boston Woven Hose and Rubber Co., Boston, Mass., Fred'k Swift  
 & Co., Agents, Old Colony Bldg., Chicago, Ill.  
 Clayton & Lambert Manufacturing Co., Ypsilanti, Mich.  
 Darling Pump and Manufacturing Co., Williamsport, Pa.  
 Eaton, Cole & Burnham Co., 253 Broadway, New York.  
 Empire Rubber Manufacturing Co., Trenton, N. J.  
 Hersey Manufacturing Co., South Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Kohler & Co., F. E., Canton, Ohio.  
 Morse & Son, Andrew J., 140 Congress St., Boston, Mass.  
 Peck Bros. & Co., New Haven, Conn.  
 Pullman Sash Balance Co., Rochester, N. Y.

## 1313 NUTS—

American Bolt Co., Lowell, Mass.  
 Anderson Iron and Bolt Co., Anderson, Ind.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Buffalo Bolt Co., Buffalo, N. Y.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Chicago Forge and Bolt Co., Stewart Ave., Chicago, Ill.  
 Columbus Bolt Works, Columbus, Ohio.  
 Continental Bolt and Iron Works, 36 N. Franklin St., Chicago, Ill.  
 Orerar, Adams & Co., Chicago, Ill.  
 Detroit Screw Works, Detroit, Mich.  
 Diamond State Steel Co., Wilmington, Del.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.

1313 NUTS—Continued.

Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hartford Machine Screw Co., Hartford, Conn.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hoopes & Townsend, Philadelphia, Pa.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Indiana Iron Co., Muncie, Ind.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Kansas City Bolt and Nut Co., Kansas City, Mo.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lamson & Sessions Co., Cleveland, Ohio.  
 Lannan, E. B., Columbus, Ohio.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 Manning, Maxwell & Moore, 85 Liberty St., New York.  
 Marland, Neely & Co. (Ltd.), Pittsburg, Pa.  
 Michigan Bolt and Nut Works, Detroit, Mich.  
 Milton Manufacturing Co., The, Milton, Pa.  
 National Bolt, Nut and Rivet Works, Reading, Pa.  
 National Elastic Nut Co., Milwaukee, Wis.  
 New Orleans Railway and Mill Supply Co. (Ltd.), N. Orleans, La.  
 Pennsylvania Bolt and Nut Co., Lebanon, Pa.  
 Phosphor Bronze Smelting Co. (Ltd.), Philadelphia, Pa.  
 Pittsburg Forge and Iron Co., Pittsburg, Pa.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Republic Iron and Steel Co., Chicago, Ill.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Tudor Iron Works, 415 Locust St., St. Louis, Mo.  
 Upson Nut Co., Unionville, Conn.  
 Wheeling Hinge Co., Wheeling, W. Va.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1314 NUTS—Elastic Self Locking—Steel—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 National Elastic Nut Co., Milwaukee, Wis.

1316 NUTS—Track—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
 American Bolt Co., Lowell, Mass.  
 Birmingham Bolt and Nut Works, Birmingham, Ala.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Cambria Steel Co., Philadelphia, Pa.  
 Chicago Forge and Bolt Co., 40th St. and Stewart Ave., Chicago.  
 Continental Bolt and Iron Works, 38 N. Franklin St., Chicago, Ill.  
 Crerar, Adams & Co., Chicago, Ill.  
 Diamond State Steel Co., Wilmington, Del.  
 Dwight, E. P., 417 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Illinois Steel Co., Chicago, Ill.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Joseph Iron Co., Isaac, Cincinnati, Ohio.  
 Kansas City Bolt and Nut Co., Kansas City, Mo.



## 1316 NUTS—Track—Continued.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lindley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 Michigan Bolt and Nut Works, Detroit, Mich.  
 National Bolt, Nut and Rivet Works, Reading, Pa.  
 New Orleans Railway and Mill Supply Co. (Ltd.), N. Orleans, La.  
 Pawtucket Manufacturing Co., Pawtucket, R. I.  
 Pittsburg Forge and Iron Co., Pittsburg, Pa.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 RAILWAY EQUIPMENT AND FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.  
 Republic Iron and Steel Co., Chicago, Ill.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Springfield Iron Co., Springfield, Ill.  
 Sternberger & Son, J. H., Reading, Pa.  
 Tredegar Co., Richmond, Va.  
 Tudor Iron Works, 415 Locust St., St. Louis, Mo.  
 Upson Nut Co., Unionville, Conn.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 1317 NUT LOCKS—

American Brake Beam Co., Monadnock Block, Chicago, Ill.  
 American Washer and Manufacturing Co., Chicago, Ill.  
 Bourne & Knowles Manufacturing Co., Cleveland, Ohio.  
 Cleveland City Forge and Iron Co., Cleveland, Ohio.  
 Crandall, Stone & Co., Binghamton, N. Y.  
 Eureka Nut Lock Co., Pittsburg, Pa.  
 French Spring Co., A., Pittsburg, Pa.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 Jones Positive Nutlock Co., The, Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 National Elastic Nut Co., Milwaukee, Wis.  
 National Lock Washer Co., Newark, N. J.  
 Peerless Manufacturing Co., Louisville, Ky.  
 Ruffner & Son, 3521 Bowman St., Philadelphia, Pa.  
 Spiral Nut Lock Co., 102 Chambers St., New York.  
 Sternbergh & Son, J. H., Reading, Pa.  
 Verona Tool Works, Pittsburg, Pa.  
 Volute Nut Lock Co., Fort Wayne, Ind.  
 Vulcanized Fibre Co., Wilmington, Del.  
 Wharton, Jr., & Co., Wm., 308 Walnut St., Philadelphia, Pa.

## 1318 OIL—Anti-Rust—

Binghamton Oil Refining Co., Binghamton, N. Y.  
 Kellogg & Co., E. H., 243 South St., New York.  
 Melville, F. H., 57 N. Moore St., New York.  
 Nye, W. F., New Bedford, Mass.  
 Stevenson Bros. & Co., 132 S. 2d St., Philadelphia, Pa.

## 1319 OIL—Belting—

Borne-Scrymser Co., 80 South St., New York.  
 Delaney Oil and Lubricant Co., Milwaukee, Wis.  
 Parke & Lacy Co., San Francisco, Cal.  
 Standard Oil Co. of New York, 26 Broadway, New York.  
 World Refining Co., Easton, Pa.

1320 OIL—Car—

Borne-Scrymser Co., 80 South St., New York.  
 Brooks Oil Co., Cleveland, Ohio.  
 Fiske Bros. Refining Co., 59 Water St., New York.  
 Galena Oil Co., Franklin, Pa.  
 Hsley, Doubleday & Co., 229 Front St., New York.  
 Reliance Oil and Grease Co., Cleveland, Ohio.  
 World Refining Co., Easton, Pa.

1321 OIL—Creosote—

Walker Chemical Works, Harrison, N. J.

1322 OILS—Cylinder—

American Oil Co., 180 S. Water St., Providence, R. I.  
 Atlantic Refining Co., 125 Arch St., Philadelphia, Pa.  
 Borne-Scrymser Co., 80 South St., New York.  
 Cleveland Petrolatum Co., Cleveland, Ohio.  
 Globe Oil Co., Cleveland, Ohio.  
 Manhattan Oil Co., 51 Front St., New York.  
 McWilliams (Ltd.), R., New Orleans, La.  
 Miller's Sons Co., A. D., Pittsburg, Pa.  
 Signal Oil Co., Franklin, Pa.  
 Smith Railroad Lubricating Co., Elizabethport, Pa.  
 Standard Oil Co. of New York, 26 Broadway, New York.  
 Troy Oil Works, Troy, N. Y.  
 Vacuum Oil Co., Rochester, N. Y.

1323 OIL—Engine—

American Oil Co., 180 S. Water St., Providence, R. I.  
 Atlantic Refining Co., 125 Arch St., Philadelphia, Pa.  
 Borne-Scrymser Co., 80 South St., New York.  
 Crescent Oil Works, Franklin, Pa.  
 Detroit Lubricator Co., Detroit, Mich.  
 Franklin Oil Works, Franklin, Pa.  
 Galena Oil Co., Franklin, Pa.  
 Globe Oil Co., Cleveland, Ohio.  
 Manhattan Oil Co., 51 Front St., New York.  
 McWilliams, (Ltd.), R., New Orleans, La.  
 Miller's Sons Co., A. D., Pittsburg, Pa.  
 Reliance Oil and Grease Co., Cleveland, Ohio.  
 Standard Oil Co. of New York, 26 Broadway, New York.  
 Troy Oil Works, Troy, N. Y.  
 Union Oil Co., Pittsburg, Pa.  
 Vacuum Oil Co Rochester, N. Y.

1324 OIL—Graphited—

Dixon Crucible Co., Joseph, Jersey City, N. J.

1325 OIL—Illuminating—

Atlantic Refining Co., 125 Arch St., Philadelphia, Pa.  
 Columbia Refining Co., New York.  
 Eclipse Lubricating Oil Works, Franklin, Pa.  
 Ensign Refining Co., Cleveland, Ohio.  
 Freedom Oil Works, Freedom, Pa.  
 Miller's Sons Co., A. D., Pittsburg, Pa.

1325 OIL—Illuminating—Continued.

Pacific Coast Oil Co., San Francisco, Cal.  
Peerless Transit Co., Cleveland, Ohio.  
Standard Oil Co. of New York, 26 Broadway, New York.  
Union Petroleum Co., 138 S. 4th St., Philadelphia, Pa.  
Waters-Pierce Oil Co., St. Louis, Mo.

1326 OIL—Japan—

Sipe & Co., James B., Allegheny, Pa.

1327 OIL—Lard—

American Oil Co., Providence, R. I.  
Burckhardt & Co., Cincinnati, Ohio.  
Dalzell, Son & Co., James (Inc.), Pittsburg, Pa.  
Delaney Oil & Lubricant Co., Milwaukee, Wis.  
Fiske Bros. Refining Co., 59 Water St., New York.  
Harbaugh Co., A. G., Cleveland, Ohio.  
Janton & Sons, G., Columbus, Ohio.  
Macy's Sons, Josiah, 191 Front St., New York.  
Manhattan Oil Co., 51 Front St., New York.  
Sinclair & Co., T. M. (Inc.), Cedar Rapids, Ia.

1328 OIL—Linseed—

Blabon & Co., George W., 34 N. 5th St., Philadelphia, Pa.  
Burlington Linseed Oil Co., Burlington, Ia.  
Cedar Rapids Linseed Oil Works, Cedar Rapids, Ia.  
Chicago White Lead and Oil Co., N. Greene and Fulton, Chicago.  
Cincinnati Linseed Oil Co., Cincinnati, Ohio.  
Cleveland Linseed and Oil Co., Cleveland, Ohio.  
Crown Linseed Oil Works, St. Louis, Mo.  
Dean Linseed Oil Co., 181 Front St., New York.  
Delaney Oil and Lubricant Co., Milwaukee, Wis.  
Dubuque Linseed Oil Co., Dubuque, Iowa.  
Fredonia Oil Works, Fredonia, Kas.  
Leavenworth Linseed Oil Works, Leavenworth, Kas.  
Mann Bros. & Co., Buffalo, N. Y.  
Mansfield Linseed Oil Works, Mansfield, Ohio.  
Mound City Paint and Color Co., St. Louis, Mo.  
National Lead and Oil Co. of Pennsylvania, Pittsburg, Pa.  
National Lead Co., St. Louis, Mo.  
National Linseed Oil Co., 1285 Old Colony Bldg., Chicago, Ill.  
Sioux City Linseed Oil Works, Sioux City, Ia.  
World Refining Co., Easton, Pa.

1329 OIL—Linseed—Boiled—

Campbell & Thayer, 89 Maiden Lane, New York.  
Crown Linseed Oil Works, St. Louis, Mo.  
Grissold Linseed Oil Co., Warren, Ohio.  
Leavenworth Linseed Oil Works, Leavenworth, Kas.  
Lowe Bros. Co., The, Dayton, Ohio.  
Mound City Paint and Color Co., St. Louis, Mo.  
National Lead and Oil Co. of Pennsylvania, Pittsburg, Pa.  
National Linseed Oil Co., 1285 Old Colony Bldg., Chicago, Ill.  
Thresher & Co., Dayton, O.  
Wright & Lawther Oil and Leather Manufacturing Co., 33 W. Polk St., Chicago, Ill.

1330 OIL—Lubricating—

Beasley & Co., Charles H., 10 N. Canal St., Chicago, Ill.  
 Cleveland Petrolatum Co., 767 Pearl St., Chicago, Ill.  
 Drehler Grease and Oil Co., 80 Cortlandt St., New York.  
 Fliske Bros. Refining Co., 59 Water St., New York.  
 Franklin Oil Works, Franklin, Pa.  
 Fuller & Co., W. P., Pine and Front Sts., San Francisco, Cal.  
 Galena Oil Co., Franklin, Pa.  
 National Cement and Rubber Manufacturing Co., Toledo, Ohio.  
 Star Manufacturing Co., Dock St, Easton, Pa.  
 Union Petroleum Co., 138 S. 4th St., Philadelphia, Pa.

1332 OIL—Petroleum—Crude—

Bissett Bros., Bradford, Pa.  
 Columbia Oil Co., Pittsburg, Pa.  
 Edgett, A. J., Bradford, Pa.  
 Hazelwood Oil Co., Pittsburg, Pa.  
 McKinney Bros., Titusville, Pa.  
 Potts & Potter, Bradford, Pa.  
 Rice Petroleum and Soap Co., Titusville, Pa.  
 Tide Water Oil Co., 12 Broadway, New York.

1333 OIL—Signal—

American Oil Co., Providence, R. I.  
 Delaney Oil and Lubricant Co., Milwaukee, Wis.  
 Freedom Oil Works, Freedom, Pa.  
 Kellogg & Co., E. H., 243 South St., New York.  
 Signal Oil Co., Franklin, Pa.  
 Standard Oil Co. of New York, 26 Broadway, New York.  
 Tide Water Oil Co., 12 Broadway, New York.  
 Vacuum Oil Co., Rochester, N. Y.

1334 OIL—Typewriter—

Arctic Oil Works, San Francisco, Cal.  
 Kelley, Ezra, New Bedford, Mass.  
 Nye, W. F., New Bedford, Mass.  
 Webster Co., F. S., Boston, Mass.

1335 OIL—Valve—

American Oil Co., Providence, R. I.  
 Binghamton Oil Refining Co., Binghamton, N. Y.  
 Borne-Scrymser Co., 80 South St., New York.  
 Delaney Oil and Lubricant Co., Milwaukee, Wis.  
 Franklin Oil Works, Franklin, Pa.  
 Galena Oil Works, Franklin, Pa.  
 Manhattan Oil Co., 51 Front St., New York.  
 Merchants' Oil Co., Cleveland, Ohio.  
 Signal Oil Co., Franklin, Pa.  
 Vacuum Oil Co., Rochester, N. Y.

1336 OIL CLOTH—

American Linoleum Manufacturing Co., Boston, Mass.  
 Chandler & Gay, Norwood, Mass.  
 Dunn & Co., J. C., Camden, N. J.

- 1336 OIL CLOTH—Continued.  
 Haskell Co., Robert C., Lansingburg, N. Y.  
 Murphy & Co., P. J., Camden, N. J.  
 Potter, Sons & Co., Thomas, 522 Arch St., Philadelphia, Pa.  
 Trenton Oil Cloth and Linoleum Co., Trenton, N. J.
- 1337 OIL ELIMINATORS—  
 Hoppes Manufacturing Co., Springfield, Ohio.
- 1338 OIL FEEDERS—Boiler—  
 Powell Co., Wm., Cincinnati, Ohio.
- 1339 OILERS—Bench—Steel—  
 Gem Manufacturing Co., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page 4.  
 Wall Manufacturing Supply Co., P., 718 Preble Ave., Allegheny.
- 1340 OILERS—Brass—  
 Detroit Lubricator Co., Detroit, Mich.  
 Draper-Williams Manufacturing Co., Boston, Mass.  
 Gem Manufacturing Co., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 1341 OILERS—Crank Pin—  
 Detroit Lubricator Co., Detroit, Mich.  
 Dickson Manufacturing Co., Scranton, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Michigan Lubricator Co., Detroit, Mich. See ad. page A 1.  
 Star Brass Manufacturing Co., 53 Oliver St., Boston, Mass.
- 1342 OILERS—Engineers'—  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Gem Manufacturing Co., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 1343 OILS—Engineers' Sets—  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 1344 OILERS—Glass Body—  
 Detroit Lubricator Co., Hodges Bldg., Detroit, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 1345 OILERS—Machine—  
 Bridgeport Brass Co., Bridgeport, Conn.  
 Consolidated Fruit Jar Co., 49 Warren St., New York.  
 Detroit Lubricator Co., Detroit, Mich.  
 Gem Manufacturing Co., Pittsburg, Pa.  
 Goodyear's India Rubber Glove Manufacturing Co., 503 Broadway, New York.  
 Gray, Peter, 12 Marshall St., Boston, Mass.  
 Hero Fruit Jar Co., Gaul and Adams Sts., Philadelphia, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Level Flow Oilier Manufacturing Co., Akron, Ohio.  
 Miller & Co., Edward, Meriden, Conn.  
 Nason Manufacturing Co., 71 Beekman St., New York.  
 Tower & Lyon, 95 Chambers St., New York.

**1346 OILERS—Railroad—**

Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Detroit Lubricator Co., Detroit, Mich.  
 Deverall Perfection Manufacturing Co., 38 Bridge St., Brooklyn.  
 Gem Manufacturing Co., Pittsburg, Pa.  
 Gray, Peter, 12 Marshall St., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lonergan & Co., J. E., 211 Race St., Philadelphia, Pa.  
 Wall Manufacturing Supply Co., Allegheny, Pa.  
 Wilmot & Hobbs Manufacturing Co., Bridgeport, Conn.

**1349—OILING DEVICES—Manifold—**

Detroit Lubricator Co., Detroit, Mich.  
 Hall, H. K., 40 Cortlandt St., New York.  
 Lonergan & Co., J. E., 211 Race St., Philadelphia, Pa.

**1350 PACKING—Air Brake—**

Diamond Rubber Co., The, Akron, Ohio.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New York Belting and Packing Co., New York.

**1351 PACKING—Asbestos—**

Asbestos Felting Works, 79 Maiden Lane, New York.  
 Cornell Asbestos Co., Pittsburg, Pa.  
 Franklin Manufacturing Co., Franklin, Pa.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New York Belting and Packing Co., New York.  
 Standard Asbestos Manufacturing Co. (Ltd.), Franklin, Pa.  
 Watson Co., H. F., Erie, Pa.

**1352 PACKING—Asbestos-Metallic—**

Carey Manufacturing Co., The Philip, 415 E. Pearl St., Cincinnati.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New York Belting and Packing Co., New York.  
 Watson Co., H. F., Erie, Pa.

**1353 PACKING—Asbestos Rope—**

Carey Manufacturing Co., The Philip, 415 E. Pearl St., Cincinnati.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 Keasbey & Mattison Co., Ambler, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New York Belting and Packing Co., New York.  
 Watson Co., H. F., Erie, Pa.

**1354 PACKING—Asbestos Sheet—**

Carey Manufacturing Co., The Philip, 415 E. Pearl St., Cincinnati.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New York Belting and Packing Co., New York.  
 Watson Co., H. F., Erie, Pa.

1355 PACKING—Asbestos Wick—

Carey Manufacturing Co., The Philip, 415 E. Pearl St., Cincinnati.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 Keasbey & Mattison Co., Ambler, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New York Belting and Packing Co., New York.  
 Watson Co., H. F., Erie, Pa.

1356 PACKING—Engine—

Atkins & Co., E. C., Indianapolis, Ind.  
 Boston Belting Co., 256 Devonshire St., Boston, Mass.  
 Brandt, Randolph, 38 Cortlandt St., New York.  
 Empire Rubber Manufacturing Co., Trenton, N. J.  
 Franklin Manufacturing Co., Franklin, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Leather and Brass Manufacturing Co., Seneca Falls, N. Y.  
 New York Belting and Packing Co., New York.  
 Robertson & Sons, J. L., 204 Fulton St., New York.

1357 PACKING—Hemp—

Brandt, Randolph, 38 Cortlandt St., New York.  
 Jacobs Cordage Co., 64 Carr St., Cincinnati, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lawrence Cordage Works, 46 South St., New York.  
 Livermore Foundry and Machine Co., Memphis, Tenn.  
 New York Belting and Packing Co., New York.  
 Union Selling Co., Distributors, 287 Broadway, New York.

1358 PACKING—Metallic—

Charleston Metallic Packing Co., Charleston, S. C.  
 Common Sense Metal Packing Co., 393 Pearl St., New York.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Garlock Packing Co., Palmyra, N. Y.  
 Jerome Metallic Packing Co., Chicago, Ill.  
 Joyce-Cridland Co., The, Dayton, Ohio.  
 Knowlton Packing Co., 32 N. Canal St., Chicago, Ill.  
 New York Belting and Packing Co., New York.  
 Phenix Metallic Packing Co., Great Northern Bldg., Chicago, Ill.  
 Todd Manufacturing Co., New Albany, Ind.  
 U. S. Metallic Packing Co., 427 N. 13th St., Philadelphia, Pa.  
 Wendell & MacDuffie, 26 Cortlandt St., New York.

1359 PACKING—Metallic Air Brake—

United States Metallic Packing Co., The, Philadelphia, Pa.

1360 PACKING—Metallic Air Pump—

Jerome, C. C., 35 S. Canal St., Chicago, Ill.

1361 PACKING—Metallic Piston—

Carey Manufacturing Co., The Philip, 415 E. Pearl St., Cincinnati.  
 Jerome, C. C., 35 S. Canal St., Chicago, Ill.  
 TOPPAN CO., THE J. S., Great Northern Bldg., Chicago, Ill.  
 See ad. page A 8.  
 United States Metallic Packing Co., The, Philadelphia, Pa.

**1362 PACKING—Metallic Valve Stem—**

Jerome, C. C., S. Canal St., Chicago, Ill.  
United States Metallic Packing Co., The, Philadelphia, Pa.

**1363 PACKING—Plumbago—**

Boston Belting Co., Boston, Mass.  
Empire Rubber Manufacturing Co., Trenton, N. J.  
Greene, Tweed & Co., 17 Murray St., New York.  
Home Rubber Co., Trenton, N. J.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
New York Belting and Packing Co., New York.  
Trenton Rubber Co., Trenton, N. J.

**1364 PACKING—Rubber—**

American Supply Manufacturing Co., 20 Warren St., New York.  
Boston Belting Co., Boston, Mass.  
Chicago Rubber and Belting Co., 312 Dearborn St., Chicago, Ill.  
Diamond Rubber Co., The, Akron, Ohio.  
Empire Rubber Manufacturing Co., Trenton, N. J.  
Goodrich Co., B. F., Akron, Ohio.  
Gutta Percha and Rubber Mfg. Co., 35 Warren St., New York.  
Home Rubber Co., Trenton, N. J.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
McKim Gasket and Manufacturing Co., S. Chicago, Ill.  
Mechanical Rubber Co., 22 Murray St., New York.  
New Jersey Car Spring and Rubber Co., Jersey City, N. J.  
New York Belting and Packing Co., 25 Park Row, New York.  
Peerless Rubber Manufacturing Co., 16 Warren St., New York.  
Revere Rubber Co., Boston, Mass.  
Trenton Rubber Co., Trenton, N. J.  
United Rubber Co., Trenton, N. J.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**1365 PACKING—Soap Stone—**

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
New York Belting and Packing Co., New York.  
Silver Lake Co., Newtonville, Mass.

**1366 PACKING—Spiral—**

Brandt, Randolph, 38 Cortlandt St., New York.  
Delaney Oil and Lubricant Co., Milwaukee, Wis.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**1367 PACKING—Vulcabeston—**

Fairbanks, Morse & Co., Chicago, Ill.  
Johns Manufacturing Co., H. W., 100 William St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**1368 PACKING—Vulcanized Fibre—**

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Vulcanized Fibre Co., Wilmington, Del.



1369 PADS—Stamp—

Force & Co., William A., 59 Beekman St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Laughton & Co., J. B., Westfield, Mass.  
 New York Stencil Works, 100 Nassau St., New York.  
 Pomeroy Bros., Newark, N. J.  
 Smith Manufacturing Co., R. H., Springfield, Mass.  
 Stafford, Nelson, 66 Fulton St., New York.  
 Webster Co., F. S., 246 Congress St., Boston, Mass.

1370 PADLOCKS—

Bohannon, Wilson, 760 Lexington Ave., Brooklyn, N. Y.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Brittan & Matthes Co., Pittsburg, Pa.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Chapman & Co., W. H., Middletown, Conn.  
 Corbin, P. & F., New Britain, Conn.  
 Orecar, Adams & Co., Chicago, Ill.  
 Dayton Manufacturing Co., Dayton, Ohio.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hubley Manufacturing Co., Lancaster, Pa.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 Miller Lock Co., 4523 Tacony St., Philadelphia, Pa.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Russell & Erwin Manufacturing Co., 45 Chambers St., New York.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Union Lock and Hardware Co., Lancaster, Pa.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1371 PAINT—Asphalt—

Asphalt Rubber Paint Co., 612 F St., Washington, D. C.  
 EASTERN GRANITE ROOFING CO., Jersey City, N. J. See ad.  
 page A 6.  
 TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.

1372 PAINT—Car and Coach—

Acme White Lead and Color Works, Detroit, Mich.  
 Atlas Railway Supply Co., Monadnock Block, Chicago, Ill.  
 Billings, Taylor & Co., Cleveland, Ohio.  
 Brown-Lilly Co., Indianapolis, Ind.  
 Bryant Paint Manufacturing Co., G. E., Princeton, Ind.  
 Buckeye Paint and Varnish Co., Toledo, Ohio.  
 CURDSAL CO., A., Indianapolis, Ind.  
 Detroit White Lead Works, Detroit, Mich.  
 Devoe & Reynolds Co., F. W., New York and Chicago.  
 Fenton, Sibley & Co., 136 N. 4th St., Philadelphia, Pa.

1372 PAINT—Car and Coach—Continued.

Fuller & Co., W. P., Pine and Front Sts., San Francisco, Cal.  
 Harrison Bros. & Co., Philadelphia, Pa.  
 Heath & Milligan Mfg. Co., 170 Randolph St., New York.  
 James Mercantile and Manufacturing Co., B. L., Denver, Col.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 Knox System Co., The, Troy, Ohio.  
 Lawrence & Co., W. W. (Inc.), Pittsburg, Pa.  
 Longman & Martinez, 207 Pearl St., New York.  
 Lowe Bros. Co., The, Dayton, Ohio.  
 McWilliams (Ltd.), R., New Orleans, La.  
 Moser Co., Charles, 213 Main St., Cincinnati, Ohio.  
 Mound City Paint and Color Co., St. Louis, Mo.  
 Patterson & Sargent Co., Cleveland, Ohio.  
 Peninsular Lead and Color Works (Ltd.), Detroit, Mich.  
 Rubber Paint Co., 63 Boston Ave., Chicago, Ill.  
 Sherwin-Williams Co., Cleveland, Ohio.  
 Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.  
 Wilhelm Co., A., Reading, Pa.  
 Woolsey Paint and Color Co., C. A., Jersey City, N. J.

1373 PAINT—Fire Proof—

Allentown Manufacturing Co., Allentown, Pa.  
 Atlas Railway Supply Co., Monadnock Block, Chicago, Ill.  
 Burdsal, Co., A., Indianapolis, Ind.  
 Chicago Fire Proof Covering Co., 48 Franklin St., Chicago, Ill.  
 De Ronde Co., Frank S., 54 John St., New York.  
 Iron Clad Paint Co., Cleveland, Ohio  
 Jaemison Fire Resisting Paint Co., 62 William St., New York.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 Knox System Co., Troy, Ohio.  
 Lucas & Co., John, 4th and Race Sts., Philadelphia, Pa.  
 McWilliams (Ltd.), R., New Orleans, La.  
 New York Leather and Paint Co., 339, New York.  
 Prince Manufacturing Co., The, 71 Maiden Lane, New York.  
 TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.

1374 PAINT—Graphite—

Acme White Lead and Color Works, Detroit, Mich.  
 Buckeye Paint and Varnish Co., Toledo, Ohio.  
 BURDSAL CO., THE A., Indianapolis, Ind.  
 Detroit Graphite Manufacturing Co., Detroit, Mich.  
 Devoe & Reynolds Co., F. W., New York and Chicago.  
 Dixon Crucible Co., Joseph, Jersey City, N. J.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 Knox System Co., The, Troy, Ohio.  
 Lowe Bros. Co., The, Dayton, Ohio.  
 McWilliams (Ltd.), R., New Orleans, La.  
 Michigan Paint Co., Flint, Mich.  
 Mound City Paint and Color Co., St. Louis, Mo.  
 Peninsular Lead and Color Works (Ltd.), Detroit, Mich.  
 Sherwin-Williams Co., Cleveland, Ohio.  
 Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.  
 Woolsey Paint and Color Co., C. A., Jersey City, N. J.

## 1375 PAINT—Iron—

Acme White Lead and Color Works, Detroit, Mich.  
 Allentown Manufacturing Co., Allentown, Pa.  
 Alston Manufacturing Co., 212 Randolph St., Chicago, Ill.  
 Atlas Paint Co. (Ltd.), Pittsburg, Pa.  
 Billings, Taylor & Co., Cleveland, Ohio.  
 Bryant Paint Manufacturing Co., G. E., Princeton, Ind.  
 Buckeye Paint and Varnish Co., Toledo, Ohio.  
 Burdsal Co., The A., Indianapolis, Ind.  
 Chattanooga Paint Co., Chattanooga, Tenn.  
 Chilton Manufacturing Co., 69 Cortlandt St., New York.  
 Cleveland Iron Ore Paint Co., Cleveland, Ohio.  
 Detroit Graphite Manufacturing Co., Detroit, Mich.  
 Detroit White Lead Works, Detroit, Mich.  
 Devoe & Reynolds Co., F. W., Detroit and Chicago.  
 Dixon Crucible Co., Joseph, Jersey City, N. J.  
 Hazzard, A. B., 615 N. 2d St., St. Louis, Mo.  
 Iron Clad Paint Co., Cleveland, Ohio.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 Knox System Co., The, Troy, Ohio.  
 Lawrence & Co. (Inc.), W. W., Pittsburg, Pa.  
 Lowe Bros. Co., The, Dayton, Ohio.  
 McClintock & Irvine, Allegheny, Pa.  
 McWilliams (Ltd.), R., New Orleans, La.  
 Mound City Paint and Color Co., St. Louis, Mo.  
 Peninsular Lead and Color Works (Ltd.), Detroit, Mich.  
 Pennsylvania Standard Rubber Paint Co. (Inc.), Philadelphia, Pa.  
 Platt & Thornburgh Paint and Glass Co., St. Louis, Mo.  
 Rubber Paint Co., 63 Boston Ave., Chicago, Ill.  
 Sherwin-Williams Co., Cleveland, Ohio.  
 Standard Paint Co., 77 John St., New York.  
 Wadsworth-Howland Co., Indiana Ave. and 13th St., Chicago, Ill.  
 Walker Chemical Works, Harrison, N. J.  
 Wilhelm Co., A., Reading, Pa.  
 Williams & Co., C. K., Easton, Pa.  
 Woolsey Paint and Color Co., C. A., Jersey City, N. J.

## 1376 PAINT—Roofing—

Acme White Lead and Color Works, Detroit, Mich.  
 Allentown Manufacturing Co., Allentown, Pa.  
 Atlas Railway Supply Co., Monadnock Block, Chicago, Ill.  
 Chicago Fire Proof Covering Co., 48 Franklin St., Chicago, Ill.  
 DeRonde Co., Frank S., 54 John St., New York.  
 Detroit Graphite Co., Detroit, Mich.  
 Iron Clad Paint Co., Cleveland, Ohio.  
 Jaemison Fire Resisting Paint Co., 62 William St., New York.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 Knox System Co., The, Troy, Ohio.  
 Lucas & Co., John, 4th and Race Sts., Philadelphia, Pa.  
 McWilliams (Ltd.), R., New Orleans, La.  
 Mound City Paint and Color Co., St. Louis, Mo.  
 New York Leather and Paint Co., 339 Broadway, New York.  
 Prince Manufacturing Co., The, 71 Maiden Lane, New York.  
 TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st  
 St., St. Louis, Mo. See ad. page A 5.

**1376 PAINT—Roofing—Continued.**

Walker Chemical Works, Harrison, N. J.  
Watson Co., H. F., Erie, Pa.

**1377 PAINT—Wood Preserving—**

Acme White Lead and Color Works, Detroit, Mich.  
American Wood Preserving Co., 806 Chestnut St., Philadelphia.  
Carbolineum Wood Preserving Co., 13 Park Row, New York.  
Cling-Surface Manufacturing Co., 143 Virginia St., Buffalo, N. Y.  
Summerville Fermoline Works, Summerville, S. C.

**1378 PAINT BURNERS—**

Hull, M. L., 24 Broadway, New York.  
Williams & Co., C. K., Easton, Pa.

**1379 PANELS—Car—**

Allison Manufacturing Co., S. 32d and Walnut Sts., Philadelphia.  
Brill Co., J. G., 62d St. and Woodland Ave., Philadelphia, Pa.  
Sjoberg & Co., J. P., 145 11th Ave., New York.  
Stephenson Co. (Ltd.), John, 47 E. 27th St., New York.

**1380 PAPER—Asbestos—**

Franklin Manufacturing Co., Franklin, Pa.  
Johns Manufacturing Co., H. W., 100 William St., New York.  
Keasbey & Mattison Co., Ambler, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Waston Co., H. F., Erie, Pa.

**1381 PAPER—Blue Print—**

Beckman, L., 57 Adams St., Toledo, Ohio.  
Chicago Blue Print Paper Co., Chicago, Ill.  
Detzgen Co., Eugene, New York.  
Keuffel & Esser Co., 127 Fulton St., New York.  
Queen & Co. (Inc.), 1010 Chestnut St., Philadelphia, Pa.  
Spaulding Print Paper Co., 53 State St., Boston, Masss.

**1382 PAPER—Building—**

Armitage Manufacturing Co., The, Richmond, Va.  
Barrett Manufacturing Co., 290 Broadway, New York.  
BIRD & SON, F. W., E. Walpole, Mass. See ad. page A 3.  
Garrett & Son, C. S., 20 S. Marshall St., Philadelphia, Pa.  
Hopkins, H. H., 50 Dearborn St., Chicago, Ill.  
Lockport Paper Co., Lockport, N. Y.  
Mica Roofing Co., 100 William St., New York.  
Nelson Paper Co., Minenapolis, Minn.  
Newton Paper Co., Holyoke, Mass.  
Standard Paint Co., 77 John St., New York.  
TRINIDAD ASPHALT MANUFACTURING CO., St. Louis, Mo.  
See ad. page A 5.  
Watson Co., H. F., Erie, Pa.

## 1383 PAPER—Carbon—

Carter's Ink Co., 172 Columbus Ave., Boston, Mass.  
 Eden Tissue Mills, Whippany, N. Y.  
 Gerber, Henry, 93 Nassau St., New York.  
 Little, A. P., Rochester, N. Y.  
 New York Carbon and Transfer Paper Co., 107 Liberty St., New York.  
 Typewriter Cushion Key Co., 297 Washington St., Newark, N. J.  
 Underwood & Co., John, 30 Vesey St., New York.  
 Webster Co., F. S., 246 Congress St., Boston, Mass.  
 Wood & Co., Charles H., 614 5th Ave., Chicago, Ill.

## 1384 PAPER—Copying—

Anchor Mills Paper Co., Windsor Locks, Conn.  
 Dexter & Sons, C. H., Windsor Locks, Conn.  
 Eden Tissue Mills, Whippany, N. Y.  
 Mann Co., William, 60 Maiden Lane, New York.  
 Whittelsey, Frank H., Windsor Locks, Conn.

## 1385 PAPER—Drawing—

Brown Paper Co., Levi L., Adams, Mass.  
 Keuffel & Esser Co., 127 Fulton St., New York.  
 Mittineague Paper Co., Mittineague, Mass.  
 Symington & Co., J., Lancaster, Pa.  
 Taylor & Co., Springfield, Mass.  
 West Jersey Paper Manufacturing Co., Camden, N. J.

## 1386 PAPER—Emery—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Frasse Co., 19 Warren St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Standard Flint Paper Co., Arlington, N. J.  
 Washington Mills Emery Mfg. Co., North Grafton, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 1387 PAPER—Fire Proof—

BIRD & SON, F. W., E. Walpole, Mass., and Monadnock Block,  
 Chicago, Ill. See ad. page A 3.  
 TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.

## 1388 PAPER—Flint—

Baeder, Adamson & Co., 730 Market St., Philadelphia, Pa.  
 Behr & Co., Herman, 75 Beekman St., New York.  
 Boston Flint Paper Co., of Maine, Hallowell, Me.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Northampton Emery Wheel Co., 20 S. Canal St., Chicago, Ill.  
 Standard Flint Paper Co., Arlington, N. J.  
 Washington Mills Emery Mfg. Co., North Grafton, Mass.

## 1389-1393

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### 1389 PAPER—Garnet—

Baeder, Adamson & Co., 730 Market St., Philadelphia, Pa.  
Barton & Son Co., H. H., 222 Market St., Philadelphia, Pa.  
Behr & Co., Herman, 75 Beekman St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Northampton Emery Wheel Co., 20 S. Canal St., Chicago, Ill.  
Standard Flint Paper Co., Arlington, N. J.

### 1390 PAPER—Insulating—

American Insulating Material Co., St. Louis, Mo.  
Armitage Manufacturing Co., The, Richmond, Va.  
BIRD & SON, F. W., E. Walpole, Mass., and Monadnock Block,  
Chicago, Ill. See ad. page A 3.  
Fay Manilla Roofing Co., 516 Point St., Camden, N. J.  
General Electric Co., Schenectady, N. Y.  
Standard Paint Co., 77 John St., New York.  
TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
St. Louis, Mo. See ad. page A 5.  
Watson Co., H. F., Erie, Pa.

### 1391 PAPER—Manilla—

Albany Perforated Wrapping Paper Co., Albany, N. Y.  
Badger Paper Co., Kankanno, Wis.  
Bradner, Smith & Co. (Inc.), 119 Monroe St., Chicago, Ill.  
Chemical Paper Co., Holyoke, Mass.  
Cleveland Paper Co., Cleveland, Ohio.  
Hollingsworth & Vose Co., 44 Federal St., Boston, Mass.  
Indiana Paper Co., Indianapolis, Ind.  
Manning & Peckham, Troy, N. Y.  
Perrine Paper Co., Franklin, Ohio.  
Phillips Co., Thomas, Akron, Ohio.  
Ramsey & Son, James B., 14 S. Marshall St., Philadelphia, Pa.  
Remington Paper Co., Watertown, N. Y.  
Smith Paper Co., Lee, Mass.  
Tytus-Gardner Paper and Manufacturing Co., Middletown, Ohio.  
Whitmore Manufacturing Co., Holyoke, Mass.

### 1392 PAPER—Profile—Engineers' Section—

Keuffel & Esser Co., 127 Fulton St., New York.  
Queen & Co., 1010 Chestnut St., Philadelphia, Pa.

### 1393 PAPER—Railroad Blanks—

Allen, Lane & Scott, 1211 Clover St., Philadelphia, Pa.  
Brooks & Co., Cleveland, Ohio.  
Burford, Wm. B., Indianapolis, Ind.  
Hadley Printing Co., The, Toledo, Ohio.  
Hamden Glazed Paper and Card Co., Holyoke, Mass.  
Holyoke Card and Paper Co., Springfield, Mass.  
Richmond & Backus Co., The, Detroit, Mich.  
Rhode Island Card Board Co., Pawtucket, R. I.  
Stacy, G. N., Tecumseh, Mich.  
Whitmore Manufacturing Co., Holyoke, Mass.  
Woodward & Tiernan Co., The, St. Louis, Mo.

1394 PAPER—Roofing—

American Insulating Material Co., St. Louis, Mo.  
 BIRD & SON, F. W., E. Walpole, Mass., and Monadnock Block,  
 Chicago, Ill. See ad. page A 3.  
 Cleveland Paper Co., Cleveland, Ohio.  
 Fay Manilla Roofing Co., Camden, N. J.  
 Fox Paper Co., Lockland, Ohio.  
 Hopkins, H. H., 50 Dearborn St., Chicago, Ill.  
 Mica Roofing Co., 100 William St., New York.  
 TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.  
 Warren Chemical and Mfg. Co., 81 Fulton St., New York.

A1394 PAPER—Safety—

Perfect Safety Paper Co., The, Franklin, Ohio.

1395 PAPER—Sand—

Baeder, Adamson & Co., 730 Market St., Philadelphia, Pa.  
 Barton & Son Co., H. H., 222 Market St., Philadelphia, Pa.  
 Behr & Co., Herman, 75 Beekman St., New York.  
 Boston Flint Paper Co., of Maine, Hallowell, Me.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Buzzell, O. W., Lynn, Mass.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hollingsworth & Vose Co., Boston, Mass.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 Manning, John A., Troy, N. Y.  
 Manning & Peckham, Troy, N. Y.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Union Sand Paper and Emery Wheel Co., 60 S. Canal St., Chicago.  
 West Jersey Paper Manufacturing Co., Camden, N. J.  
 Wiggin & Stevens, Dover, N. H.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1396 PAPER—Sheathing—

Armitage Manufacturing Co., The, Richmond, Va.  
 BIRD & SON, F. W., Monadnock Block, Chicago, Ill., and E.  
 Walpole, Mass. See ad. page A 3.  
 Fay Manilla Roofing Co., 516 Point St., Camden, N. J.  
 Standard Paint Co., 77 John St., New York.  
 TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.

**1397 PAPER—Toilet—**

A. P. W. Paper Co., Albany, N. Y.  
 Cole & Co., W. A., Putney, Vt.  
 Dexter & Sons, C. H., Windsor Locks, Conn.  
 Diamond Mills Paper Co., 44 Murray St., New York.  
 Fisk Paper Co., Hinsdale, N. H.  
 Godfrey, Joseph C., Raubsville, Pa.  
 Moore & Son, John T., Bellows Falls, Vt.  
 Morgan Envelope Co., Springfield, Mass.  
 Whittelsey, Frank H., Windsor Locks, Conn.  
 Wortendyke Manufacturing Co., Richmond, Va.

**1398 PATTERNS—**

Cleveland Ship Building Co., 120 Viaduct, Cleveland, Ohio.  
 Hall & Sons, R. C., Cumberland, Md.  
 Hurlbut Co., Racine, Wis.  
 Lowell Model Co., Lowell, Mass.  
 Michigan Brick and Tile Machine Co., Morenci, Mich.  
 Norwood Engineering Co., Florence, Mass.  
 Novelty Manufacturing Co., Rock Island, Ill.  
 Stover Manufacturing Co., Freeport, Ill.

**1399 PATTERNS—Metal—**

Acme Malleable Iron Works, Buffalo, N. Y.  
 Chicago Model Works, 181 E. Madison St., Chicago, Ill.  
 Forest City Brass Works, Cleveland, Ohio.  
 Rowland, John T., Racine, Wis.  
 Stover Manufacturing Co., Freeport, Ill.  
 Taylor & Boggis Foundry Co., Cleveland, Ohio.

**1400 PEDESTALS—Shaft—**

Cresson Co., George V., 18th St. and Allegheny Ave., Philadelphia.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Ellicott Machine Co., Baltimore, Md.  
 Filer & Stowell Co. (Ltd.), Milwaukee, Wis.  
 Poole & Son Co., Robert, Baltimore, Md.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**1401 PENS—Electric—**

Western Electrical Co., Omaha, Neb.

**1402 PENS—Fountain—**

Diamond Point Pen Co., 231 Broadway, New York.  
 Eagle Pencil Co., 377 Broadway, New York.  
 Laughlin Manufacturing Co., Detroit, Mich.  
 Parker Pen Co., The, Janesville, Wis.  
 Waterman Co., L. E., 151 Broadway, New York.  
 Wirt, Paul E., Bloomsburg, Pa.

**1403 PENS—Steel—**

Barnes & Co., A. S., 156 5th Ave., New York.  
 Brooks & Co., Cleveland, Ohio.  
 Burford, Wm. B., Indianapolis, Ind.



## 1403 PENS—Steel—Continued.

Eagle Pencil Co., 377 Broadway, New York.  
 Esterbrook Steel Pen Manufacturing Co., Camden, N. J.  
 Miller Bros. Cutlery Co., Meriden, Conn.  
 Richmond & Backus Co., The, Detroit, Mich.  
 Spencerian Pen Co., 450 Broome St., New York.  
 Turner & Harrison, 1211 Spring Garden St., Philadelphia, Pa.  
 Woodward & Tiernan Co., The, St. Louis, Mo.

## 1404 PENS—Stylographic—

Laughlin Manufacturing Co., Detroit, Mich.

## 1405 PEN HOLDERS—

American Lead Pencil Co., 491 Broadway, New York.  
 Brooks & Co., Cleveland, Ohio.  
 Burford, Wm. B., Indianapolis, Ind.  
 Clark's Indelible Pencil Co., Northampton, Mass.  
 Cutter-Tower Co., Boston, Mass.  
 Eagle Pencil Co., 377 Broadway, New York.  
 Esterbrook Steel Pen Manufacturing Co., Camden, N. J.  
 Faber, Eberhardt, 545 Pearl St., New York.  
 Pearce & Co., F. T., Providence, R. I.  
 Richmond & Backus Co., The, Detroit, Mich.  
 Woodward & Tiernan Co., The, St. Louis, Mo.

## 1406 PENCILS—Lead—

American Lead Pencil Co., 491 Broadway, New York.  
 Brooks & Co., Cleveland, Ohio.  
 Burford, Wm. B., Indianapolis, Ind.  
 Cutter-Tower Co., 12 A. Milk St., Boston, Mass.  
 Dixon Crucible Co., Joseph, Jersey City, N. J.  
 Eagle Pencil Co., 377 Broadway, New York.  
 Faber, Eberhard, 545 Pearl St., New York.  
 Richmond & Backus Co., The, Detroit, Mich.  
 Spencerian Pen Co., 450 Broome St., New York.  
 Shafer, F. L., 269 Dearborn St., Chicago, Ill.  
 Woodward & Tiernan Co., The, St. Louis, Mo.

## 1407 PHOSPHOR BRONZE—

Crown Smelting Co., Chester, Pa.  
 Phosphor Bronze Smelting Co. (Ltd.), 2200 Washington Ave., Philadelphia, Pa.  
 Reeves & Son, Paul S., Philadelphia, Pa.  
 William & Son, E. A., 105 Plymouth St., Jersey City, N. J.

## 1408 PHOSPHOR BRONZE—Ingots—

Damascus Bronze Co., Pittsburg, Pa.  
 Great Western Smelting and Refining Co., Chicago, Ill.  
 Reeves & Son, Paul S., Philadelphia, Pa.  
 United States Bronze Co., The, Cleveland, Ohio.

## 1409 PHOSPHORUS—

Baker & Adamson Chemical Co., Easton, Pa.  
 Moro-Phillips Chemical Co., 131 S. 3d St., Philadelphia, Pa.  
 Riker, J. L. & D. L., 46 Cedar St., New York.

## 1410-1414

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### 1410 PICKS—Coal—

Dayton Malleable Iron Co., Dayton, Ohio.  
Iron City Tool Works (Ltd.), Pittsburg, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Verona Tool Works, Pittsburg, Pa.

### 1411 PICKS—Track—

American Axe and Tool Co., Pittsburg, Pa.  
Atha Tool Co., Newark, N. J.  
Bostwick-Braun Co., The, Toledo, Ohio.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Columbus Manufacturing Co., Columbus, Ohio.  
Crerar, Adams & Co., Chicago, Ill.  
Dayton Malleable Iron Co., Dayton, Ohio.  
Doble Co., Abner, San Francisco, Cal.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Findlay Axe and Tool Co., Findlay, Ohio.  
Frankfort Handle Manufacturing Co., Frankfort, Ind.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Harvey, H. H., Boston, Mass.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
Iron City Tool Works (Ltd.), Pittsburg, Pa.  
Iwan Bros., Streator, Ill.  
James & Co. (Inc.), Chattanooga, Tenn.  
Jenkins Iron and Tool Co., Bellefonte, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
Verona Tool Works, Pittsburg, Pa.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

### 1412 PIERS—Iron and Steel—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Penn Bridge Co., Beaver Falls, Pa.  
Pennsylvania Steel Co., Steelton, Pa.

### 1413 PIGEON HOLE CASES—

Dornette & Bro., J., 1250 Harrison Ave., Cincinnati, Ohio.  
Fenton Metallic Manufacturing Co., Jamestown, N. Y.  
U. S. Desk and Office Fitting Co., Wabash Ave., Chicago, Ill.  
U. S. Desk, File and Cabinet Co., Indianapolis, Ind.

### 1414 PILE DRIVERS—

American Hoist and Derrick Co., St. Paul, Minn.  
Austin Manufacturing Co., F. C., Harvey, Ill.  
Bucyrus Co., The, S. Milwaukee, Wis.  
Carlin's Sons, Thomas, Allegheny, Pa.  
Excelsior Iron Works Co., Cleveland, Ohio.  
Howell & Co., R. R., Minneapolis, Minn.

1414 PILE DRIVERS—Continued.

Industrial Works, Bay City, Mich.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Lidgerwood Manufacturing Co., 96 Liberty St., New York.

Mundy, J. S., Newark, N. J.

Novelty Iron Works, Dubuque, Iowa.

Toledo Foundry and Machine Co., The, Toledo, Ohio.

VULCAN IRON WORKS, 59 Milwaukee Ave., Chicago, Ill.

1416 PILE DRIVING RING PULLERS—

Carlin's Sons, Thomas, Allegheny, Pa.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1417 PILE JOINTS AND SHOES—

Carlin's Sons, Thomas, Allegheny, Pa.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1418 PILE RINGS—

Carlin's Sons, Thomas, Allegheny, Pa.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1419 PILING—

Baxter & Co., G. S., 18 Wall St., New York.

Defiance Box Co., Defiance, Ohio.

Eppinger & Russell Co., 66 Broad St., New York.

Johnson & Son, B., Richmond, Ind.

Meredith, J. P., Memphis, Tenn.

Norfolk Creosoting Co., Norfolk, Va.

Palmer, W. C. B., Robey St. and Blue Island Ave., Chicago, Ill.

Southern Pine Co., of Georgia, Savannah, Ga.

STONE, FRANK B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

Thornton, H. H., Pensacola, Fla.

Wakefield Sheet Piling Co., Rookery Bldg., Chicago, Ill.

1420 PILING—Creosoted—

Michigan Pipe Co., Bay City, Mich.

STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

West Pascagoula Creosote Works, West Pascagoula, Miss.

1421 PILING—Cypress—

Baxter & Co., G. S., 18 Wall St., New York.

Griffen Lumber Co., George M., St. Louis, Mo.

STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

1422 PILING—Oak—

Griffen Lumber Co., George M., St. Louis, Mo.

STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

1423 PILING—Sheet—

STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

Wakefield Sheet Piling Co., 416 The Rookery, Chicago, Ill.

1424 PILING—Pine—

STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

Texas Train and Lumber Co., Beaumont, Tex.

1425-1431

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1425 PINS—Air Brake—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Vulcanus Forging Co., The, 965 Hamilton St., Cleveland, Ohio.

1426 PINS—Coupling—

Bemis Box Car Co., Springfield, Mass.  
Buffalo Forge Co., Buffalo, N. Y.  
Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
Cleveland City Forge and Iron Co., Cleveland, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Pittsburg Forge and Iron Co., Pittsburg, Pa.  
Tredegar Co., Richmond, Va.

1427 PINS—Crank—

Bethlehem Steel Co., S. Bethlehem, Pa.  
Cambria Steel Co., Philadelphia, Pa.  
Carbon Steel Co. of America, Pittsburg, Pa.  
Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
Jones & Co., B. M., Boston, Mass.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Midvale Steel Co., Nicetown, Philadelphia, Pa.  
Prosser & Son, Thomas, 15 Gold St., New York.  
Vulcan Iron Works, Wilkesbarre, Pa.

1428 PINS—Crosshead—

Bethlehem Steel Co., S. Bethlehem, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1429 PINS—Surveyors' Lining—

Anderson & Sons, W. H., Detroit, Mich.

1430 PINIONS—

Chester Steel Castings Co., 407 Library St., Philadelphia, Pa.  
Chickasaw Iron Works Memphis, Tenn.  
Dickson Manufacturing Co., Scranton, Pa.  
Great Western Manufacturing Co., Leavenworth, Kas.  
Noye Manufacturing Co., John T., Buffalo, N. Y.  
Pittsburg Steel Castings Co., Pittsburg, Pa.  
Poole & Son Co., Robert, Baltimore, Md.  
Taylor Iron and Steel Co., High Bridge, N. J.  
Vulcan Iron Works, Wilkesbarre, Pa.

1431 PIPE—Cast Iron—Gas, Steam and Water—

American Car and Foundry Co., St. Louis, Mo.  
American Tube and Iron Co., Middletown, Pa.  
Bridgeport Boiler Works, Bridgeport, Conn.  
Dalrymple Iron Works, Fairhaven, Vt.  
Hendy Machine Works, Joshua, San Francisco, Cal.  
Illinois Malleable Iron Co., 30 W. Monroe St., Chicago, Ill.  
Leffel & Co., James, Springfield, Ohio.  
National Tube Works Co., Boston, Mass.  
Otto Gas Engine Works, The, Philadelphia, Pa.  
Reading Foundry Co. (Ltd.), Reading, Pa.

- 1431 PIPE—Cast Iron—Gas, Steam and Water—Continued.  
 Risdon Iron and Locomotive Works, San Francisco, Cal.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.  
 U. S. CAST IRON PIPE AND FOUNDRY CO., The Rookery,  
 Chicago, Ill.  
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
- 1432 PIPE—Cast Iron Sewer—  
 U. S. CAST IRON AND PIPE FOUNDRY CO., The Rookery,  
 Chicago, Ill.
- 1433 PIPE—Cement Sewer—  
 Wilson & Baillie Manufacturing Co., Brooklyn, N. Y.
- 1435 PIPE—Culvert—Cast Iron—  
 Donaldson Iron Co., Emaus, Pa.  
 Warren Foundry and Machine Co., Phillipsburg, N. J.  
 U. S. CAST IRON PIPE AND FOUNDRY CO., The Rookery,  
 Chicago, Ill.
- 1436 PIPE—Culvert—Steel—  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Lansing Boller and Engine Works, Lansing, Mich.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.
- 1437 PIPE—Drain—Vitrified—  
 AMERICAN CLAY MFG. CO. OF NEW JERSEY, Pittsburg, Pa.  
 See ad. page A 1.  
 Dickey Clay Manufacturing Co., W. S., Kansas City, Mo.  
 Terre Haute Brick and Pipe Co., Opera Bldg., Terre Haute, Ind.
- 1438 PIPE—Galvanized Iron—  
 Abendroth & Root Manufacturing Co., 28 Cliff St., New York.  
 Allison Manufacturing Co., S. 32d and Walnut Sts., Philadelphia.  
 Boston Blower Co., Hyde Park, Mass.  
 Cunningham Iron Co., 29 Water St., Boston, Mass.  
 Davis Co., The John, Chicago, Ill.  
 Delaware Iron Co., 222 S. 3d St., Philadelphia, Pa.  
 Garry Iron and Steel Roofing Co., Cleveland, Ohio.
- 1439 PIPES—Hose—  
 Belknap Manufacturing Co., Bridgeport, Conn.  
 Boston Belting Co., 256 Devonshire St., Boston, Mass.  
 Eaton, Cole & Burnham Co., 253 Broadway, New York.  
 Eberle, Charles H., 93 Oliver St., Boston, Mass.  
 Empire Rubber Manufacturing Co., Trenton, N. J.  
 Haydenville Manufacturing Co., 73 Beekman St., New York.  
 Morse & Son, Andrew J., 140 Congress St., Boston, Mass.  
 Peck Bros. & Co., New Haven, Conn.
- 1440 PIPE—Lead—  
 American Shot and Lead Co., 84 Van Buren St., Chicago, Ill.  
 Blatchford & Co., E. W., 70 N. Clinton St., Chicago, Ill.  
 Boston Lead Manufacturing Co., 162 Congress St., Boston, Mass.  
 Colwell Lead Co., 63 Center St., New York.  
 Davis Co., The John, Chicago, Ill.  
 Detroit Lead Pipe and Sheet Lead Works, Detroit, Mich.

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### 1440 PIPE—Lead—Continued.

National Lead Co., 100 William St., New York.  
Nelson Manufacturing Co., N. O., 8th and Charles Sts., St. Louis.  
Pueblo Smelting and Refining Co., Pueblo, Col.  
Standard Manufacturing Co., Pittsburg, Pa.

### 1441 PIPE—Lead—Tin Lined—

Blatchford & Co., E. W., 70 N. Clinton St., Chicago, Ill.  
Boston Lead Manufacturing Co., 162 Congress St., Boston, Mass.  
National Lead Co., 100 William St., New York.  
Raymond Lead Co., 51 W. Lake St., Chicago, Ill.  
Van Noorden & Co., E. Boston, Mass.

### A1441 PIPE—Oil—

Seamless Steel Tube Co., Detroit, Mich.

### B1441 PIPE—Riveted Steel—

SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

### 1442 PIPE—Sewer—Vitrified—

AMERICAN CLAY MFG. CO. OF NEW JERSEY, 2d National Bank Bldg., Pittsburg, Pa. See ad. page A 1.  
American Pipe Manufacturing Co., 112 N. Broad St., Philadelphia.  
Birmingham Fire Brick Works, Birmingham, Ala.  
Blackmer & Post Pipe Co., Equitable Bldg., St. Louis, Mo.  
Buckeye Sewer Pipe Co., Akron, Ohio.  
Buffalo Sewer Pipe Co., Buffalo, N. Y.  
Burch & Co., H. O., New London, Conn.  
Clark & Sons, N., San Francisco, Cal.  
CONSOLIDATED COAL AND LIME CO., Indianapolis, Ind.  
Dickson Manufacturing Co., Scranton, Pa.  
Evans & Howard Fire Brick Co., St. Louis, Mo.  
Gladding, McBean & Co., Lincoln, Cal.  
Iowa Pipe and Tile Co., Des Moines, Iowa.  
Lyth & Sons, John, Buffalo, N. Y.  
Montague & Co., Chattanooga, Tenn.  
Moore & Rawlin, Dallas, Texas.  
Moores & Co., Cincinnati, Ohio.  
Pennsylvania Mine Supply Co., Pittsburg, Pa.  
Pomona Terra Cotta Co., Pomona, N. C.  
Portland Sewer Pipe and Artificial Stone Co., Portland, Me.  
Racine Cement and Pipe Co., Racine, Wis.  
Royal Sewer Pipe and Fire Brick Co., Akron, Ohio.

### 1443 PIPE—Steel—

Abendroth & Root Manufacturing Co., 28 Cliff St., New York.  
Carlin's Sons, Thomas, Allegheny, Pa.  
Freeman & Sons Manufacturing Co., S., Racine, Wis.

### A1443 PIPE—Stove—

Budke Manufacturing Co., 421 Wood St., Pittsburg, Pa.  
Chattanooga Steel Roofing Co., Chattanooga, Tenn.  
Chicago Stamping Co., 227 S. Green St., Chicago, Ill.  
Pfeifer & Co., John (Ltd.), 222 Race St., Philadelphia, Pa.  
Robinson Bros. & Co., Akron, Ohio.  
Van Wagoner & Williams Hardware Co., 14 Warren St., New York.

**1444 PIPE—Stove—Clay—**

AMERICAN CLAY MFG. CO. OF NEW JERSEY, 2d National Bank Bldg., Pittsburg, Pa. See ad. page A 1.

**1445 PIPE—Wrought Iron—Steam, Gas and Water—**

Albright, Son & Co., Allentown, Pa.  
 American Pipe Manufacturing Co., 112 N. Broad St., Philadelphia.  
 Crane, Churchill Co., Omaha, Neb.  
 Crane Co., 10 N. Jefferson St., Chicago, Ill.  
 Davis Co., The John, Chicago, Ill.  
 Duquesne Tube Works Co., Pittsburg, Pa.  
 National Tube Works Co., Boston, Mass.  
 Pittsburg Tube Co., Pittsburg, Pa.  
 Riverside Iron Works (Inc.), Wheeling, W. Va.  
 Tyler Tube and Pipe Co., Washington, Pa.

**1446 PIPE CUTTERS—Hand—**

Hoggson & Pettis Manufacturing Co., New Haven, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pancoast & Co., Henry B., 243-245 S. 3d St., Philadelphia, Pa.  
 Trimount Manufacturing Co., Roxbury, Mass.

**1447 PIPE FITTINGS—Steam, Gas and Water—**

Bailey, Farrell & Co., Pittsburg, Pa.  
 Belfield & Co., H., 435 Broad St., Philadelphia, Pa.  
 Belknap Manufacturing Co., Bridgeport, Conn.  
 Brass and Iron Works Co., Fostoria, Ohio.  
 Crane, Churchill Co., Omaha, Neb.  
 Crosby Steam Gage and Valve Co., Boston, Mass.  
 Dart Manufacturing Co., E. M., Providence, R. I.  
 Davis Co., The John, 51 Michigan St., Chicago, Ill.  
 Eaton, Cole & Burnham Co., 253 Broadway, New York.  
 Flagg & Co., Stanley G., Philadelphia, Pa.  
 General Fire Extinguisher Co., Providence, R. I.  
 Gleason & Bailey Manufacturing Co., 20 W. Houston St., New York.  
 Jarecki Manufacturing Co., Erie, Pa.  
 Livermore Foundry and Machine Co., Memphis, Tenn.  
 McGowan Co., John H., 58 Central Ave., Cincinnati, Ohio.  
 Moran Flexible Steam Joint Co., Louisville, Ky.  
 Nelson Manufacturing Co., N. O., 8th and Charles Sts., St. Louis.  
 Novelty Iron Works, Sterling, Ill.  
 Pelton Water Wheel Co., San Francisco, Cal.  
 U. S. Cast Iron Pipe and Foundry Co., Chicago, Ill.  
 Watson-Stillman Co., 204 E. 43d St., New York.

**1448 PISTONS—**

Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.

**1449 PISTON HEADS—**

Chester Steel Castings Co., 407 Library St., Philadelphia, Pa.  
 Pratt & Letchworth Co., Buffalo, N. Y.

**1450 PISTON RODS—**

Bethlehem Steel Co., S. Bethlehem, Pa.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carbon Steel Co. of America, Pittsburg, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Jones & Co., B. M., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 Phosphor Bronze Smelting Co. (Ltd.), 2200 Washington Ave., Philadelphia, Pa.  
 Prosser & Son, Thomas, 15 Gold St., New York.  
 Taunton Copper Manufacturing Co., Taunton, Mass.

**1451 PITCH—**

Armitage Manufacturing Co., The, Richmond, Va.  
 Childs, W. H. H., 73 Maiden Lane, New York.  
 Garrett & Son, C. S., 20 S. Marshall St, Philadelphia, Pa.  
 Shotter Co., S. P., Savannah, Ga.

**1452 PITCH—Coal Tar—**

TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.

**1453 PITCH—Paving—**

Armitage Manufacturing Co., The, Richmond, Va.  
 Barrett Manufacturing Co., 290 Broadway, New York.  
 Carey Manufacturing Co., The Philip, Cincinnati, Ohio.  
 Tide Water Oil Co., 12 Broadway, New York.  
 TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.

**1454 PITCH—Roofing—**

Armitage Manufacturing Co., Richmond, Va.  
 Barrett Manufacturing Co., 290 Broadway, New York.  
 Carey Manufacturing Co., The Philip, Cincinnati, Ohio.  
 Mica Roofing Co., 100 William St., New York.  
 Warren Chemical and Manufacturing Co., 81 Fulton St., New York.

**1455 PLANES—Adjustable—**

Chapin's Sons Co., H., Pine Meadow, Conn.  
 Gage Tool Co., Vineland, N. J.  
 Letellier & Co., F., Grand Rapids, Mich.  
 Ohio Tool Co., Columbus, Ohio.  
 Sandusky Tool Co., Sandusky, Ohio.  
 Stanley Rule and Level Co., New Britain, Conn.

**1456 PLANES—Bead—**

Chapin's Sons Co., H., Pine Meadow, Conn.  
 Ohio Tool Co., Columbus, Ohio.  
 Sandusky Tool Co., Columbus, Ohio.  
 Stanley Rule and Level Co., New Britain, Conn.



## 1457 PLANES—Bench—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Chapin's Sons Co., H., Pine Meadow, Conn.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Gage Tool Co., Vineland, N. J.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Ohio Tool Co., Columbus, Ohio.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sandusky Tool Co., Sandusky, Ohio.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 1458 PLANES—Combination—

Chapin's Sons Co., H., Pine Meadow, Conn.  
 Stanley Rule and Level Co., New Britain, Conn.  
 Tower & Lyon, 95 Chambers St., New York.

## 1459 PLANES—Iron—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Chapin's Sons, H., Pine Meadow, Conn.  
 Crerar, Adams & Co., Chicago, Ill.  
 Detrick & Harvey Machine Co., Baltimore, Md.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Jennings & Co., C. E., 79 Reade St., New York.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 Meriden Malleable Iron Co., Meriden, Conn.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Stanley Rule and Level Co., New Britain, Conn.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 1460 PLANER ATTACHMENTS—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Underwood & Co., H. B., 1025 Hamilton St., Philadelphia, Pa.

## 1461 PLANER CENTERS—

Betts Machine Co., Wilmington, Del.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 Garvin Machine Co., 137 Varick St., New York.

**1461 PLANER CENTERS—Continued.**

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New Haven Manufacturing Co., New Haven, Conn.  
 Pratt & Whitney Co., Hartford, Conn.  
 Reed Co., F. E., Worcester, Mass.

**1462 PLANER CHUCKS—**

Fitchburg Machine Works, Fitchburg, Mass.  
 Hendey Machine Co., Torrington, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pedrick & Ayer Co., 1001 Hamilton St., Philadelphia, Pa.  
 Pratt & Whitney Co., Hartford, Conn.  
 Skinner Chuck Co., New Britain, Conn.

**1463 PLANTS—Coaling—**

Industrial Works, Bay City, Mich.

**1464 PLANTS—Steam Power—Complete—**

Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.  
 Filer & Stowell Co., Milwaukee, Wis.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Hewes & Phillips Iron Works, Newark, N. J.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Leffel & Co., James, Springfield, Ohio.  
 Poole & Son Co., Robert, Baltimore, Md.  
 Portland Co., Portland, Me.

**1465 PLATES—Bumper—**

Dickson Manufacturing Co., Scranton, Pa.

**1466 PLATFORMS—Car—Steel—**

Gould Coupler Co., New York.  
 Standard Coupler Co., 160 Broadway, New York.

**1467 PLIERS—Gas—**

Billings & Spencer Co., Hartford, Conn.  
 Cronk Hanger Co., Elmira, N. Y.  
 Johnson, William, Newark, N. J.  
 Osborne & Co., C. S., Newark, N. J.  
 Stortz & Son, John, 210 Vine St., Philadelphia, Pa.  
 Vaughan & Bushnell Mfg. Co., 877 Carroll Ave., Chicago, Ill.

**1468 PLOWS—Grading—**

Austin Manufacturing Co., F. C., Harvey, Ill.  
 Deere & Co., Moline, Ill.  
 Heller & Co., W. C., Montclair, N. J.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Western Wheeled Scraper Co., Aurora, Ill.

**1469 PLOWS—Ice—**

Buffalo Scale Co., Buffalo, N. Y.  
 Knickerbocker Ice Co., 6th and Arch Sts., Philadelphia, Pa.  
 Wood & Co., W. T., Arlington, Mass.

- 1470 **PLOWS—Rotary Snow—**  
Cooke Locomotive and Machine Co., Paterson, N. J.  
Deere & Co., Moline, Ill.
- 1471 **PLOWS—Steam Snow—**  
Bradley Manufacturing Co., David, Bradley, Ill.  
Dickson Manufacturing Co., Scranton, Pa.  
Industrial Works, Bay City, Mich.  
Portland Co., Portland, Me.  
RUSSELL SNOW-PLOW CO., 751 Tremont Bldg., Boston, Mass.  
See ad. page A 5.  
Taunton Locomotive Manufacturing Co., Taunton, Mass.
- 1472 **PLUGS—Fusible—**  
Ashcroft Manufacturing Co., 85 Liberty St., New York.  
Belknap Manufacturing Co., Bridgeport, Conn.  
Darling Pump and Manufacturing Co. (Ltd.), Williamsport, Pa.
- 1473 **PLUSH—Car—**  
Chase & Co., L. C., 129 Washington St., Boston, Mass.  
Goff & Sons, D., Pawtucket, R. I.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Massachusetts Mohair Plush Co., Boston, Mass.
- 1474 **PNEUMATIC DESPATCH SYSTEMS—**  
Creamery Package Manufacturing Co., W. Washington St., Chicago, Ill.  
Reilly Repair and Supply Co., James, 229 West St., New York.
- 1475 **PNEUMATIC DESPATCH TUBES—**  
Bastedo Package and Cash Carrier Co., Chicago, Ill.  
Zimdars & Hunt, 127 5th Ave., New York.
- 1476 **POCKETS—Post—**  
Missouri Railway Equipment Co., Union Trust Bldg., St. Louis.
- 1477 **POCKETS—Sill and Carline—**  
Missouri Railway Equipment Co., Union Trust Bldg., St. Louis.  
Western Railway Equipment Co., St. Louis, Mo.
- 1478 **POCKETS—Steel Stake—**  
Pressed Steel Car Co., Pittsburg, Pa.
- 1479 **POLES—Telegraph—**  
Coolidge Fuel and Supply Co., Minneapolis, Minn.  
Houston & Liggett, Lewisburg, Tenn.  
Loud & Sons Lumber Co., H. M., Oscoda, Mich.  
Merideth, J. P., Memphis, Tenn.  
National Tube Works Co., 70 Federal St., Boston, Mass.  
Roper Lumber Co., John L., Norfolk, Va.  
Sterling & Son, Monroe, Mich.  
STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.  
Strock, S. C., 11 Broadway, New York.

1480 POLISH—Metal—

American Oil Co., 180 S. Water St., Providence, R. I.  
 Borsum Bros., 202 Fulton St., New York.  
 Delaney Oil and Lubricant Co., Milwaukee, Wis.  
 Hazlitt & Co., George K., 373 Dearborn St., Chicago, Ill.  
 HOFFMAN, G. W., 549 E. Washington St., Indianapolis, Ind.  
 See ad. page A 6.  
 Major, A., 461 Pearl St., New York.  
 Matchless Metal Polish Co., 88 Market St., Chicago, Ill.  
 Rapp, Barnet R., 301 S. New St., West Chester, Pa.  
 Stevens, F. B., 12 Atwater St., Detroit, Mich.

1481 POROUS CUPS—

Edison Phonograph Agency, 44 Broad St., New York.  
 Gordon-Burnham Battery Co., 594 Broadway, New York.  
 Hews & Co., A. H., Cambridge, Mass.  
 New England Pottery Co., E. Boston, Mass.  
 Washington Carbon Co., Pittsburg, Pa.

1482 POSTS—Cedar—

Burnside Manufacturing Co., Burnside, Ky.  
 Lindsley Bros., Menominee, Mich.  
 Loud & Sons Lumber Co., H. M., Oscoda, Mich.  
 Palmer, W. C. B., Robey St. and Blue Island Ave., Chicago, Ill.  
 Prewitt, Spurr & Co., Nashville, Tenn.  
 Roper Lumber Co., John L., Norfolk, Va.  
 White Marble Lime Co., Manistique, Mich.  
 Wisconsin Land and Lumber Co., Hermansville, Mich.

1483 POSTS—Fence—Metal—

Avery Stamping Co., Cleveland, Ohio.  
 Pond Steel Post Co., Adrian, Mich.  
 De Kalb Fence Co., De Kalb, Ill.  
 Frost Wire Fence Co., Cleveland, Ohio.  
 Inland Steel Co., Chicago, Ill.  
 Kokomo Fence Machine Co., Kokomo, Ind.  
 Mathews Woven Wire Fence Co., Jacksonville, Ill.  
 Republic Iron and Steel Co., Chicago, Ill.  
 Union Fence Co., De Kalb, Ill.

1484 POSTS—Fence—Steel End—

Mathews Woven Wire Fence Co., Jacksonville, Ill.

1486 POTS—Tallow—Steel—

Wall Manufacturing Supply Co., P., 718 Preble Ave., Allegheny.

1487 POUNCE—

Davids Co., Thaddeus, 127 William St., New York.  
 Stafford, S. S., 605 Washington St., New York.

1488 POWDER—Blasting—

Aetna Powder Co., 1410 Security Bldg., Chicago, Ill.  
 American Forcite Powder Mfg. Co., 253 Broadway, New York.  
 Atlantic Dynamite Co. of New Jersey, Wilmington, Del.  
 California Powder Works, San Francisco, Cal.

## 1488 POWDER—Blasting—Continued.

Climax Powder Manufacturing Co., Emporium, Pa.  
 Consumers' Powder Co., Scranton, Pa.  
 Dittmar Powder Works, 47 Liberty St., New York.  
 Great Western Powder Co., Toledo, Ohio.  
 Hazard Powder Co., 44 Cedar St., New York.  
 Hecla Powder Co., 96 Liberty St., New York.  
 King Powder Co., 3d and Main Sts., Cincinnati, Ohio.  
 Lafin & Rand Powder Co., 20 Murray St., New York.  
 Miami Powder Co., Xenia, Ohio.  
 Rendrock Powder Co., 100 Broadway, New York.

## 1489 POWERS—Horse—

American Hoist and Derrick Co., St. Paul, Minn.  
 Belle City Manufacturing Co., Racine, Wis.  
 Collins Manufacturing Co., F. F., San Antonio, Tex.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Morton Manufacturing Co., Muskegon Heights, Mich.  
 St. Albans Foundry Co., St. Albans, Vt.  
 U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad.  
 page A 2.

## 1490 PRESSES—Car Seal—

Brooks & Co., E. J., 51 Dey St., New York.  
 Buffalo Seal and Press Co., Buffalo, N. Y.  
 Dayton Malleable Iron Co., Dayton, Ohio.  
 Grant Manufacturing Co., 809 Water St., S. W., Washington, D. C.  
 New York Stencil Works, 100 Nassau St., New York.  
 Q. & C., Co., 700 Western Union Bldg., Chicago, Ill.  
 Williams & Son, E. A., Jersey City, N. J.  
 Woodman Mfg. and Supply Co., The, 63 Oliver St., Boston, Mass.

## 1492 PRESSES—Crank Pin—

Dudgeon, Richard, 24 Columbia St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Olsen & Co., Tinius, 500 N. 12th St., Philadelphia, Pa.  
 Watson, Stillman & Co., 204 E. 43d St., New York.

## 1493 PRESSES—Letter Copying—

Belleville Pump and Skeln Works, Belleville, Ill.  
 Brooks & Co., Cleveland, Ohio.  
 Burford, Wm. B., Indianapolis, Ind.  
 Chicago Scale Co., 296 Jackson Boulevard, Chicago, Ill.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Hoe & Co., R., 504 Grand St., New York.  
 Illinois Iron and Bolt Co., Carpentersville, Ill.  
 Racine Malleable and Wrought Iron Co., Racine, Wis.  
 Richmond & Backus Co., The, Detroit, Mich.  
 Shriver & Co., Thomas, 333 E. 56th St., New York.  
 Tatum & Co., Samuel C., Cincinnati, Ohio.  
 Woodward & Tiernan Co., The, St. Louis, Mo.  
 Yawman & Erbe Manufacturing Co., Rochester, N. Y.

## 1494 PRESSES—Portable—Copying—

Office Specialty Manufacturing Co., Rochester, N. Y.

## 1495 PROTRACTORS—Bevel—

Alteneder & Sons, Theo., 945 Ridge Ave., Philadelphia, Pa.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Coffin & Leighton, Syracuse, N. Y.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Standard Tool Co., Athol, Mass.  
 Stevens Arms and Tool Co., J., Chicopee Falls, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 4.

## 1496 PULLEYS—

Akron Iron and Steel Co., 206 Fulton St., New York.  
 Allentown Foundry and Machine Works, Allentown, Pa.  
 Allfree Manufacturing Co., J. B., Indianapolis, Ind.  
 Allis Co., Edward P., Milwaukee, Wis.  
 American Clay Working Machinery Co., Bucyrus, Ohio.  
 American Wood Working Machine Co., 141 Broadway, New York.  
 Baldwin, Tuthill & Bolton, Grand Rapids, Mich.  
 Barnard & Leas Manufacturing Co., Moline, Ill.  
 Brown Co., A. & F., 25 Dey St., New York.  
 Case Manufacturing Co., Columbus, Ohio.  
 Chase Turbine Manufacturing Co., Orange, Mass.  
 Coleman, H. Dudley, New Orleans, La.  
 Cresson Co., George V., Philadelphia, Pa.  
 Dayton Globe Iron Works Co., Dayton, Ohio.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Ellicott Machine Co., Baltimore, Md.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Fall River Machine Co., Fall River, Mass.  
 Filer & Stowell Co. (Ltd.), Milwaukee, Wis.  
 Fitchburg Machine Works, Fitchburg, Mass.  
 Frank Machinery Co., Buffalo, N. Y.  
 Fritz, George J., 2008 S. 3d St., St. Louis, Mo.  
 Great Western Manufacturing Co., Leavenworth, Kas.  
 Griffith & Wedge Co., Zanesville, Ohio.  
 Hendy Machine Works, Joshua, San Francisco, Cal.  
 Howard Iron Works, Buffalo, N. Y.  
 Jeffrey Manufacturing Co., Columbus, Ohio.  
 Jones & Laughlins (Ltd.), Pittsburg, Pa.  
 Kehoe & Co., William, Savannah, Ga.  
 Kilburn, Lincoln & Co. (Inc.), Fall River, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lane & Bodley Co., John and Water Sts., Cincinnati, Ohio.  
 Leffel & Co., James, Springfield, Ohio.

## 1496 PULLEYS—Continued.

Link-Belt Machinery Co., Stewart Ave., Chicago, Ill.  
 Lombard Iron Works and Supply Co., Augusta, Ga.  
 Mansfield Machine Works, Mansfield, Ohio.  
 Maryland Manufacturing and Construction Co., Baltimore, Md.  
 Medart Patent Pulley Co., 277 S. Canal St., Chicago, Ill.  
 Nordyke & Marmon Co., Indianapolis, Ind.  
 Novelty Iron Works, Dubuque, Ia.  
 Pacific Iron Works, Bridgeport, Conn.  
 Peck, Stow & Wilcox Co., Southington, Conn.  
 Poole & Son Co., Robert, Baltimore, Md.  
 Prox & Brinkman Manufacturing Co., Terre Haute, Ind.  
 Racine Malleable and Wrought Iron Co., Racine, Wis.  
 Risdon Iron and Locomotive Works, San Francisco, Cal.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Smith Woolen Machinery Co., James, 411 Race St., Philadelphia.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.  
 Tatum Co., Samuel C., Water and John Sts., Cincinnati, Ohio.  
 Thornburg-Creel Co., 241 Jefferson St., Chicago, Ill.  
 Tolhurst & Son, W. H., Troy, N. Y.  
 Townsend Furnace and Machine Shop Co., Albany, N. Y.  
 Twin City Iron Works, 307 3d St., Minneapolis, Minn.  
 Vogt Machine Co., Henry, Louisville, Ky.  
 Walker Co., Cleveland, Ohio.  
 Webster Manufacturing Co., 1075 W. 15th St., Chicago, Ill.  
 Witte Iron Works Co., 1215 Walnut St., Kansas City, Mo.

## 1497 PULLEYS—Wood Split—

Atkins & Co., E. C., Indianapolis, Ind.  
 Barnard & Leas Manufacturing Co., Moline, Ill.  
 Bradford Belting Co., 2d and Walnut Sts., Cincinnati, Ohio.  
 Brownell & Co., Dayton, Ohio.  
 Chase & Co., F. A., Providence, R. I.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lane Manufacturing Co., Montpelier, Vt.  
 Parke & Lacy Co., San Francisco, Cal.  
 Saginaw Manufacturing Co., Saginaw, Mich.

## 1499 PUMPS—Air—

Barr Pumping Engine Co., 30 N. 7th St., Philadelphia, Pa.  
 Blakeslee Manufacturing Co., Du Quoin, Ill.  
 Crosby Steam Gage and Valve Co., Boston, Mass.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Laidlaw-Dunn-Gordon Co., Cincinnati, Ohio.  
 New York Air Brake Co., 66 Broadway, New York.  
 Rumsey & Co. (Ltd.), Seneca Falls, N. Y.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.  
 Worthington Pumping Engine Co., 120 Liberty St., New York.

## 1500 PUMPS—Boiler Feed—Steam—

Albany Steam Trap Co., Albany, N. Y.  
 Allis Co., Edward P., Milwaukee, Wis.  
 Ashcroft Manufacturing Co., 85 Liberty St., New York.

1500 PUMPS—Boiler Feed—Steam—Continued.

Baragwanth & Son, William, 48 W. Division St., Chicago, Ill.  
 Battle Creek Steam Pump Co., Battle Creek, Mich.  
 Blake Manufacturing Co., George F., 91 Liberty St., New York.  
 Crosby Steam Gage and Valve Co., Boston, Mass.  
 Dean Bros. Steam Pump Works, Indianapolis, Ind.  
 Deming Co., Salem, Ohio.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Fritz, George J., St. Louis, Mo.  
 Hooker Steam Pump Works, St. Louis, Mo.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Knowles Steam Pump Works, Warren, Mass.  
 Laidlaw-Dunn-Gordon Co., Cincinnati, Ohio.  
 McGowan Co., John H., Cincinnati, Ohio.  
 Phoenix Iron Foundry, Providence, R. I.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Stilwell-Bierce & Smith-Valle Co., Dayton, Ohio.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Worthington Pumping Engine Co., 120 Liberty St., New York.

1501 PUMPS—Centrifugal—

Barnes Manufacturing Co., Mansfield, Ohio.  
 Beloit Iron Works, Beloit, Wis.  
 Bucyrus Co., The, South Milwaukee, Wis.  
 Gleason & Bailey Mfg. Co., 20 W. Houston St., New York.  
 Goulds Manufacturing Co., Seneca Falls, N. Y.  
 Jackson Machine Works, Byron, San Francisco, Cal.  
 Kansas City Hay Press Co., Kansas City, Mo.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pulling & Co., James G., Columbus, Ohio.  
 Risdon Iron and Locomotive Works, San Francisco, Cal.  
 Rumsey & Co. (Ltd.), Seneca Falls, N. Y.  
 Trevor Manufacturing Co., Lockport, N. Y.

1502 PUMPS—Drainage—

Blake Manufacturing Co., George F., 91 Liberty St., New York.  
 Deane Steam Pump Co., Holyoke, Mass.  
 Edson Manufacturing Co., Boston, Mass.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Laidlaw-Dunn-Gordon Co., Cincinnati, Ohio.  
 Stilwell-Bierce & Smith-Valle Co., Dayton, Ohio.  
 U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad.  
 page A 2.  
 Worthington Pumping Engine Co., 120 Liberty St., New York.

1503—PUMPS—Electric—Air—

New York Air Brake Co., 66 Broadway, New York.

1504 PUMPS—Fire—

American Fire Engine Co., Seneca Falls, N. Y.  
 Battle Creek Steam Pump Co., Battle Creek, Mich.  
 Blakeslee Manufacturing Co., Du Quoin, Ill.  
 Deane Steam Pump Co., Holyoke, Mass.  
 Laidlaw-Dunn-Gordon Co., Cincinnati, Ohio.



1504 PUMPS—Fore—Continued.

Rumsey & Co. (Ltd.), Seneca Falls, N. Y.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.  
 Vanduzen Co., E. W., Cincinnati, Ohio.  
 Worthington Pumping Engine Co., 120 Liberty St., New York.

1505 PUMPS—Gas—

Weber Gas and Gasoline Engine Co., Kansas City, Mo.

1507 PUMPS—Hand Force—

Cardwell Machine Co., Richmond, Va.  
 Champion Iron Co., Kenton, Ohio.  
 Edson Manufacturing Co., Boston, Mass.  
 Mast, Foos & Co., Springfield, Ohio.  
 Rumsey & Co. (Ltd.), Seneca Falls, N. Y.  
 U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad.  
 page A 2.

1508 PUMPS—Hydraulic—

Allentown Foundry and Machine Works, Allentown, Pa.  
 Battle Creek Steam Pump Co., Battle Creek, Mich.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Blakeslee Manufacturing Co., Du Quoin, Ill.  
 Cardwell Machine Co., Richmond, Va.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Laidlaw-Dunn-Gordon Co., Cincinnati, Ohio.  
 McGowan Co., John H., 58 Central Ave., Cincinnati, Ohio.  
 Riehle Bros. Testing Machine Co., 1424 9th St., Philadelphia, Pa.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.  
 Watson-Stillman Co., 210 E. 43d St., New York.  
 Worthington Pumping Engine Co., 120 Liberty St., New York.

1509 PUMPS—Locomotive—

Battle Creek Steam Pump Co., Battle Creek, Mich.  
 Blake Manufacturing Co., George F., 91 Liberty St., New York.  
 Knowles Steam Pump Works, Warren, Mass.  
 Wells Steam Pump Works, F. C., 116 Clinton St., Chicago, Ill.

1510 PUMPS—Lubricator—

Joyce-Cridland Co., The, Dayton, Ohio.

A1510 PUMPS—Mining—

MacLeod & Clark, 457 E. Front St., Cincinnati, Ohio.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.

1511 PUMPS—Marine—

Barr Pumping Engine Co., 30 N. 7th St., Philadelphia, Pa.  
 Battle Creek Steam Pump Co., Battle Creek, Mich.  
 Blakeslee Manufacturing Co., Du Quoin, Ill.  
 Deane Steam Pump Co., Holyoke, Mass.  
 Edson Manufacturing Co., 132 Commercial St., Boston, Mass.  
 Laidlaw-Dunn-Gordon Co., Cincinnati, Ohio.  
 MacLeod & Clark, 457 E. Front St., Cincinnati, Ohio.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.  
 Worthington Pumping Engine Co., 120 Liberty St., New York.

**1512 PUMPS—Oil—**

Detroit Lubricator Co., The, Detroit, Mich.  
 Lonergan & Co., J. E., 211 Race St., Philadelphia, Pa.  
 MICHIGAN LUBRICATOR CO., Detroit, Mich. See ad. page A 1.  
 Powell Co., Wm., Cincinnati, Ohio.  
 Rumsey & Co. (Ltd.), Seneca Falls, N. Y.  
 Wayne Manufacturing Co., Anthony, Ft. Wayne, Ind.

**1513 PUMPS—Oils—Cylinder—**

Detroit Lubricator Co., Detroit, Mich.  
 Felthousen, E. G., Buffalo, N. Y.  
 Lunkenheimer Co., Cincinnati, Ohio.  
 MICHIGAN LUBRICATOR CO., Detroit, Mich. See ad. page A 1.

**1515 PUMPS—Pulsating—**

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 MacLeod & Clark, 457 E. Front St., Cincinnati, Ohio.

**1516 PUMPS—Steam—**

Albany Steam Trap Co., Albany, N. Y.  
 American Well Works, Aurora, Ill.  
 Battle Creek Steam Pump Co., Battle Creek, Mich.  
 Bement, Miles & Co., Philadelphia, Pa.  
 Black & Clawson Co., Hamilton, Ohio.  
 Blakeslee Manufacturing Co., Du Quoin, Ill.  
 Clayton Air Compressor Works, 26 Cortlandt St., New York.  
 Coleman, H. Dudley, New Orleans, La.  
 Dean Bros. Steam Pump Works, Indianapolis, Ind.  
 Deeley & Co., Robert, 507 W. 32d St., New York.  
 Fairbanks, Morse & Co., Franklin and Monroe Sts., Chicago, Ill.  
 Flint & Walling Manufacturing Co., Kendallville, Ind.  
 Fritz, George J., St. Louis, Mo.  
 Hall Steam Pump Co., Pittsburg, Pa.  
 Holly Manufacturing Co., Lockport, N. Y.  
 Kehoe & Co., Wm., Savannah, Ga.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Knowles & Kelly, Troy, N. Y.  
 Laidlaw-Dunn-Gordon Co., Cincinnati, Ohio.  
 Mansfield Machine Works, Mansfield, Ohio.  
 McGowan Co., John H., Cincinnati, Ohio.  
 Otto Gas Engine Works, Philadelphia, Pa.  
 Parke & Lacy Co., San Francisco, Cal.  
 Pulsometer Steam Pump Co., 135 Greenwich St., New York.  
 Roberts & Co., George H., Dayton, Ohio.  
 Stilwell-Bierce & Smith-Valle Co., Dayton, Ohio.  
 U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad. page A 2.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Watertown Steam Engine Co., Watertown, N. Y.  
 Weber Gas and Gasoline Engine Co., Kansas City, Mo.  
 Wells Steam Pump Works, F. C., 116 S. Clinton St., Chicago, Ill.

**1519 PUMPS—Windmill—**

American Well Works, Aurora, Ill.  
 Barnes Manufacturing Co., Mansfield, Ohio.  
 Bean-Chamberlin Manufacturing Co., Hudson, Mich.

## 1519 PUMPS—Windmill—

Challenge Windmill and Feed Mill Co., Batavia, Ill.  
 Elgin Wind, Power and Pump Co., Elgin, Ill.  
 Fairbanks, Morse & Co., Franklin and Monroe Sts., Chicago.  
 Gleason & Bailey Mfg. Co., 20 W. Houston St., New York.  
 Hess, Snyder & Co., Massillon, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McDonald & Morrison Manufacturing Co., Dubuque, Ia.  
 Moline Pump Co., Moline, Ill.  
 Perkins Wind Mill and Axe Co., Mishawaka, Ind.  
 Rumsey & Co. (Ltd.), Seneca Falls, N. Y.  
 U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad.  
 page A 2.  
 Woodin & Little, San Francisco, Cal.

## 1520 PUMPS—Wrecking—

American Fire Engine Co., Seneca Falls, N. Y.  
 Blake Manufacturing Co., George F., 91 Liberty St., New York.  
 Edwards & Co., Joseph, 412 Water St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Laidlaw-Dunn-Gordon Co., Cincinnati, Ohio.  
 MacLeod & Clark, 457 E. Front St., Cincinnati, Ohio.  
 Morris Machine Works, Baldwinsville, N. Y.  
 Stilwell-Bierce & Smith-Valle Co., Dayton, Ohio.  
 Worthington Pumping Engine Co., 120 Liberty St., New York.

## 1521 PUMPS AND CONDENSERS—Air—Combined—

Allis Co., Edward P., Milwaukee, Wis.  
 Filer & Stowell Co. (Ltd.), Milwaukee, Wis.  
 Laidlaw-Dunn-Gordon Co., Cincinnati, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 1522 PUMPS AND CONDENSERS—Air—Independent—

Allis Co., Edward P., Milwaukee, Wis.  
 Battle Creek Steam Pump Co., Battle Creek, Mich.  
 Blake Manufacturing Co., George F., 91 Liberty St., New York.  
 Filer & Stowell Co. (Ltd.), Milwaukee, Wis.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Knowles Steam Pump Works, Warren, Mass.  
 Laidlaw-Dunn-Gordon Co., Cincinnati, Ohio.

## 1523 PUMPING PLANTS—Gasoline—

Stilwell-Bierce & Smith Valle Co., Dayton, Ohio.

## A1523 PUMP RODS—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.

## 1525 PUNCHES—Belt—

Humason & Beckley Manufacturing Co., New Britain, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New Doty Manufacturing Co., Jonesville, Wis.

## 1526 PUNCHES—Center—

Cushman Chuck Co., Hartford, Conn.  
 Johnson, William, Newark, N. J.  
 Starrett Co., L. S., Athol, Mass.

1527 PUNCHES—Drive—

Bemis & Call Hardware & Tool Co., Springfield, Mass.

1528 PUNCHES—Hand—

Buffalo Forge Co., Buffalo, N. Y.

Fulton Iron and Engine Works, Detroit, Mich.

Pond Machine Tool Co., Plainfield, N. J.

Watson-Stillman Co., 210 E. 43d St., New York.

Whitcomb Manufacturing Co., 134 Gold St., Worcester, Mass.

1529 PUNCHES—Ticket—

Allen, Lane & Scott, 1211 Clover St., Philadelphia, Pa.

Cincinnati Manufacturing Co., Cincinnati, Ohio.

Crocker, L. O., Braintree, Mass.

Diehl & Bro., George, St. Louis, Mo.

Hanscom, J. F., 81 Elm St., Biddeford, Me.

Johnson, William, Newark, N. J.

Kraeuter Co., Newark, N. J.

McGill Manufacturing Co., 208 Dearborn St., Chicago, Ill.

Meyers Manufacturing Co., Fred J., Hamilton, Ohio.

New York Stencil Works, 100 Nassau St., New York.

Railway Register Manufacturing Co., Buffalo, N. Y.

Rand-Avery Supply Co., 117 Franklin St., Boston, Mass.

Tower & Lyon, 95 Chambers St., New York.

White & Son, Ira F., 76 Park Place, New York.

Wilcox & Co., W. W., 201 Lake St., Chicago, Ill.

Woodman Mfg. and Supply Co., The, 63 Oliver St., Boston, Mass.

1530 PUNCHES—Track—

Atha Tool Co., Newark, N. J.

Iron City Tool Works (Ltd.), Pittsburg, Pa.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Pedrick & Ayer Co., 1001 Hamilton St., Philadelphia, Pa.

Verona Tool Works, Pittsburg, Pa.

1531 PUNCHES AND DIES—

Bostwick-Braun Co., The, Toledo, Ohio.

Buck Manufacturing Co., M. M., St. Louis, Mo.

Burton & Son, A. G., 46 S. Clinton St., Chicago, Ill.

Cahill, Swift & Co., St. Louis, Mo.

Cleveland Punch and Shear Works Co., The, Cleveland, Ohio.

Crerar, Adams & Co., Chicago, Ill.

Dwight, E. P., 407 Sansom St., Philadelphia, Pa.

Haines, Jones & Cadbury Co., Philadelphia, Pa.

Hibbard, Spencer, Bartlett & Co., Chicago, Ill.

Hunt Co., C. W., 45 Broadway, New York.

James & Co. (Inc.), Chattanooga, Tenn.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Linley Supply Co., Ezra H., St. Louis, Mo.

Louisville Car Wheel and Railway Supply Co., Louisville, Ky.

New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.

Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.

Sherburne & Co., 53 Oliver St., Boston, Mass.

Simmons Hardware Co., St. Louis, Mo.

Waterbury Farrel Foundry and Machine Co., Waterbury, Conn.

ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 1532 PUNCH DIES—Ticket—

Woodman Manufacturing and Supply Co., R., Boston, Mass.

## 1533 PURIFIERS—Live Steam—

Baragwanth & Son, Wm., 48 W. Division St., Chicago, Ill.

Bonar & Co., James, Carnegie Bldg., Pittsburg, Pa.

Stilwell-Bierce & Smith-Valle Co., Dayton, Ohio.

## 1534 PURIFIERS—Water—

Industrial Water Co., 15 Wall St., New York.

INDUSTRIAL WATER PURIFIER CO., Toppan Co., The J. S.,

General Agents, Chicago, Ill. See ad. page A 8.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 1535 PUSH BUTTONS—Electric—

Ansonia Electric Co., Ansonia, Conn.

Bradley & Co., E. C., 15 Stone St., Rochester, N. Y.

Edwards & Co., 144th St., and 4th Ave., New York.

Heubel & Manger, 286 Graham St., Brooklyn, N. Y.

Low Art Tile Co., Chelsea, Mass.

Novelty Electric Co., 54 N. 4th St., Philadelphia, Pa.

Partrick, Carter & Wilkins, 125 S. 2d St., Philadelphia, Pa.

Proctor-Raymond Mfg. Co., 444 Niagara St., Buffalo, N. Y.

Scranton Button Co. (Ltd.), Scranton, Pa.

Western Electrical Co., Omaha, Neb.

Yale & Towne Manufacturing Co., Stamford, Conn.

## 1536 PUTTY—

Acme White Lead and Color Works, Detroit, Mich.

Chicago White Lead and Oil Co., N. Greene St., Chicago, Ill.

Detroit White Lead Works, Detroit, Mich.

Devoe & Reynolds Co., F. W., New York and Chicago.

Dicks & Wiggin, Dayton, Ohio.

Felton, Sibley & Co., 136 N. 4th St., Philadelphia, Pa.

French & Co., Samuel H., 4th St., Philadelphia, Pa.

Heath & Milligan Mfg. Co., 170 Randolph St., Chicago, Ill.

James Mercantile and Manufacturing Co., B. L., Denver, Col.

Lawrence & Co. (Inc.), W. W., Pittsburg, Pa.

McWilliams (Ltd.), R., New Orleans, La.

Obermayer Co., S., Cincinnati, Ohio.

Rubber Paint Co., 631 Boston Ave., Chicago, Ill.

St. Paul White Lead and Oil Co., St. Paul, Minn.

Wilhelm Co., A., Reading, Pa.

## A1536 QUARTZ—Standard Size for Cement Testing—

GARDEN CITY SAND CO., Security Bldg., Chicago, Ill. See  
ad. page A 2.

## 1537 RACKS—Postal Car—

Fenton Metallic Manufacturing Co., Jamestown, N. Y.

Harrisburg Postal Bag Rack Co., Fon du Lac, Wis.

## 1538 RADIATORS—Car Seat—

National Pipe Bending Co., New Haven, Conn.

**1540 RAILS—Car Platform—**

Dayton Manufacturing Co., Dayton, Ohio.

**1541 RAILS—Curved—**

Fulton Foundry Co., Cleveland, Ohio.

Lorraine Steel Co., Loraine, Ohio.

Pennsylvania Steel Co., Steelton, Pa.

Wharton & Co., Wm., Jr., 308 Walnut St., Philadelphia, Pa.

**1542 RAILS—Guard—**

ELLIOT FROG AND SWITCH CO., East St. Louis, Mo. See ad. page A 5.

MORDEN FROG AND CROSSING WORKS, The Rookery, Chicago, Ill. See ad. page A 5.

Pennsylvania Steel Co., Steelton, Pa.

Weir Frog Co., Cincinnati, Ohio.

**1543 RAILS—Iron—**

Allentown Rolling Mills, Allentown, Pa.

Barbour, Stockwell Co., Cambridgeport, Mass.

Bethlehem Steel Co., S. Bethlehem, Pa.

Birmingham Iron Foundry, Derby, Conn.

Cambria Steel Co., Harrison Bldg., Philadelphia, Pa.

Carey, George H., 1 Broadway, New York.

Carnegie Steel Co. (Ltd.), Pittsburg, Pa.

Cleveland Rolling Mill Co., Cleveland, Ohio.

Fulton Foundry Co., Cleveland, Ohio.

Lloyd's Son Co., H., Pittsburg, Pa.

Prosser & Son, Thomas, 15 Gold St., New York.

RAILWAY EQUIPMENT AND FINANCE CO., THE, Majestic Bldg., Indianapolis, Ind. See ad. page B 1.

Riverside Iron Works (Inc.), Wheeling, W. Va.

Springfield Iron Co., Springfield, Ill.

Troy Steel Co., Troy, N. Y.

**1544 RAILS—Light "T"—**

Aetna-Standard Iron & Steel Co., Bridgeport, Ohio.

American Iron and Steel Co., Pittsburg, Pa.

Cambria Steel Co., Harrison Bldg., Philadelphia, Pa.

Carnegie Steel Co. (Ltd.), Pittsburg, Pa.

Harriman Rolling Mill, Harriman, Tenn.

Harry Steel Works, O. K., St. Louis, Mo.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Knoxville Iron Co., Knoxville, Tenn.

Lackawanna Iron and Steel Co., Scranton, Pa.

Logan & Son, Farrel, 52 Commercial St., Brooklyn, N. Y.

Pennsylvania Steel Co., Steelton, Pa.

Potomac Steel Co., Pittsburg, Pa.

RAILWAY EQUIPMENT AND FINANCE CO., THE, Majestic Bldg., Indianapolis, Ind. See ad. page B 1.

Riverside Iron Works, Wheeling, W. Va.

Tudor Iron Works, St. Louis, Mo.

Union Iron and Steel Co., Youngstown, Ohio.

Wabash Iron Co., Terre Haute, Ind.

**1545 RAILS—Mine—**

Atha & Illingworth Co., Benjamin, Harrison, N. J.  
 Jones & Laughlins (Ltd.), Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Potomac Steel Co., Pittsburg, Pa.  
 Springfield Iron Co., Springfield, Ill.  
 Tudor Iron Works, St. Louis, Mo.

**1546 RAILS—Relaying—**

Block-Pollak Iron Co., Chicago, Ills.  
 Carey, George H., 1 Broadway, New York.  
 Dana & Co., 32 Broadway, New York.  
 Harrington, Robinson & Co., Boston, Mass.  
 Joseph Iron Co., Isaac, Cincinnati, Ohio.  
 Joseph, Joseph, & Bros., Cincinnati, Ohio.  
 Males Co., The, Cincinnati, Ohio.  
 Kilby Rail Co., Fullerton Bldg., St. Louis, Mo.  
 Mithskun Co., M., Detroit, Mich.  
 RAILWAY EQUIPMENT AND FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.  
 Steel Rail Supply Co., The, 100 Broadway, New York.  
 Templeton, Walter B., 521 The Rookery, Chicago, Ill.

**1547 RAILS—Steel—**

Aetna Standard Iron and Steel Co., Bridgeport, Ohio.  
 Allentown Rolling Mills, Allentown, Pa.  
 American Iron and Steel Co., Pittsburg, Pa.  
 Bethlehem Steel Co., So. Bethlehem, Pa.  
 Cambria Steel Co., Harrison Bldg., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Cleveland Rolling Mill Co., Cleveland, Ohio.  
 Fulton Foundry Co., Cleveland, Ohio.  
 Illinois Steel Co., Chicago, Ill.  
 North Branch Steel Co., Danville, Pa.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Potomac Steel Co., Times Bldg., Pittsburg, Pa.  
 Prosser & Son, Thomas, 15 Gold St., New York.  
 Q. & C. Co., 700 Western Union Bldg., Chicago, Ill.  
 RAILWAY EQUIPMENT AND FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.  
 Republic Iron and Steel Co., Chicago, Ill.  
 Riverside Iron Works (Inc.), Wheeling, W. Va.  
 Troy Steel Co., Troy, N. Y.  
 Wharton & Co., Wm., Jr., 308 Walnut St., Philadelphia, Pa.

**1548 RAIL BENDERS—**

Bement, Miles & Co., Philadelphia, Pa.  
 Bethlehem Foundry and Machine Co., S. Bethlehem, Pa.  
 Buda Foundry and Manufacturing Co., Harvey, Ill.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pettibone, Mulliken & Co., Marquette Bldg., Chicago, Ill.

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### 1548 RAIL BENDERS—Continued.

Q. & C. Co., Chicago, Ill.  
Verona Tool Works, Pittsburg, Pa.  
Watson-Stillman Co., 204 E. 43d St., New York.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

### 1550 RAILINGS—Bank and Office—

American Desk Co., 18 E. Van Buren St., Chicago, Ill.  
Bolles Iron and Wire Works, J. E., Detroit, Mich.  
Brunswick-Balke-Collender Co., 860 Broadway, New York.  
Grand Rapids Brass Co., Grand Rapids, Mich.  
Kansas City Wire and Iron Works, Kansas City, Mo.  
Meyers Manufacturing Co., Fred J., Hamilton, Ohio.  
Minneapolis Wire and Iron Works (Inc.), Minneapolis, Minn.  
Van Dorn Iron Works Co., Cleveland, Ohio.

### 1551 RAILINGS—Office—Wire—

Barbee Wire and Iron Works, 44 Dearborn St., Chicago, Ill.  
Bolles Iron and Wire Works, J. E., Detroit, Mich.  
Cheney-Bigelow Wire Works, Springfield, Mass.  
Gilbert & Bennett Manufacturing Co., 44 Cliff St., New York.  
Hecla Iron Works, N. 10th and Berry Sts., Brooklyn, N. Y.  
Howard & Morse, 45 Fulton St., New York.  
Kansas City Wire and Iron Works, Kansas City, Mo.  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
Meyers Manufacturing Co., Fred J., Hamilton, Ohio.  
Michigan Wire and Iron Works, Detroit, Mich.  
National Manufacturing Co., Worcester, Mass.  
Pittsburg Brass Co., Pittsburg, Pa.  
Variety Iron Works, York, Pa.

### 1552 RAILWAYS—Pole Logging Roads—

Butterworth & Lowe, Grand Rapids, Mich.

### 1553 RAILWAYS—Portable—

Corey & Co., Dearborn St., Chicago, Ill.  
Dickson Manufacturing Co., Scranton, Pa.  
Koppel, Arthur, 68 Broad St., New York.  
Pennsylvania Steel Co., Steelton, Pa.  
Peteler Portable Railway Manufacturing Co., Minneapolis, Minn.  
Philadelphia Railway Track Equipment Co., Philadelphia Pa.  
Turl's Sons, John, 534 W. 28th St., New York.

### 1555 RAMS—Hydraulic—

Deming Co., Salem, Ohio.  
Douglas, W. & B., Middletown, Conn.  
Gleason & Bailey Manufacturing Co., 20 W. Houston St., New York.  
Humphries' Manufacturing Co., Mansfield, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Millar & Son, Charles, Utica, N. Y.  
Rumsey & Co. (Ltd.), Seneca Falls, N. Y.  
Watson-Stillman Co., 210 E. 43d St., New York.

### A1555 RAMS—Steam—

Pemberthy Injector Co., Detroit, Mich.



1556 RATCHETS—Deck Sash—

Dayton Manufacturing Co., Dayton, Ohio.

1557 REAMERS—Locomotive Taper—

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago,  
Ill. See ad. page B 2.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Pratt & Whitney Co., Hartford, Conn.

Standard Tool Co., The, Cleveland, Ohio.

1558 REAMERS—Pipe—

Ashcroft Manufacturing Co., 85 Liberty St., New York.

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago,  
Ill. See ad. page B 2.

Cincinnati Screw and Tap Co., The, Cincinnati, Ohio.

Cleveland Twist Drill Co., Cleveland, Ohio.

King & Co., J. M., Waterford, N. Y.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Mueller Manufacturing Co., H., Decatur, Ill.

Pratt & Whitney Co., Hartford, Conn.

Putnam Machine Co., Fitchburg, Mass.

Standard Tool Co., Cleveland, Ohio.

1559 RECORDERS—Pressure—

Crosby Steam Gage and Valve Co., Boston, Mass.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1560 RECORDERS—Speed—

Ashcroft Manufacturing Co., 85 Liberty St., New York.

Boyer Railway Speed Recorder Co., St. Louis, Mo.

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago,  
Ill. See ad. page B 2.

Crosby Steam Gage and Valve Co., Oliver St., Boston, Mass.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Railway Speed Recorder Co., Kent, Ohio.

1561 RECORDERS—Time—Employees'—

Standard Time Stamp Co., 844 Washington St., New York.

1562 REELS—Hose—

Adams & Co., A., Cleveland, Ohio.

Blair Manufacturing Co., Springfield, Mass.

Dubuar Manufacturing Co., Northville, Mich.

Empire Rubber Manufacturing Co., Trenton, N. J.

Gutta Percha and Rubber Mfg. Co., 35 Warren St., New York.

King & Knight, Boston, Mass.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Racine Fire Engine Co. (Ltd.), Racine, Wis.

Union Manufacturing Co., Toledo, Ohio.

**1563 REGISTERS—Electric—**

American Watchman's Time Detector Co., 234 Broadway, New York.  
 Anchor Electric Co., 71 Federal St., Boston, Mass.  
 Bristol Co., Waterbury, Conn.  
 Bunnell & Co., J. H., 76 Cortlandt St., New York.  
 Gurley, W. & L. E., Troy, N. Y.  
 Patrick, Carter & Wilkins, 125 S. 2d St., Philadelphia, Pa.  
 Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

**1564 REGISTERS—Time—**

Dey Time Register Co., Syracuse, N. Y.

**1566 REGULATORS—Air Brake—**

Mason Regulator Co., 6 Oliver St., Boston, Mass.

**1567 REGULATORS—Damper—**

Crompton & Knowles Loom Works, Worcester, Mass.  
 Davis Co., John, 51 Michigan St., Chicago, Ill.  
 Davis Co., S. M., 100 N. Clinton St., Chicago, Ill.  
 Harrisburg Manufacturing and Boiler Co., Harrisburg, Pa.  
 Nason Manufacturing Co., 71 Beekman St., New York.

**1568 REGULATORS—Feed—Water—**

Best, Fox & Co., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**1569 REGULATORS—Pump—**

Davis Co., John, 51 Michigan St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**1570 REGULATORS—Steam—**

Davis & Co., G. M., 26 S. Jefferson St., Chicago, Ill.  
 Dickson Manufacturing Co., Scranton, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Mason Regulator Co., 6 Oliver St., Boston, Mass.  
 Worthington Pumping Engine Co., 120 Liberty St., New York.

**1571 REGULATORS—Water and Air—**

Davis Co., The John, 51 Michigan St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**1572 RENOVATORS—Passenger Car—**

TOPPAN CO., THE J. S., Great Northern Bldg., Chicago, Ill.  
 See ad. page A 8.

**1573 RIBBONS—Stamp—**

New York Stencil Works, 100 Nassau St., New York.  
 Smith Manufacturing Co., R. H., Springfield, Mass.

## 1574 RIBBONS—Typewriter—

Brooks & Co., Cleveland, Ohio.  
 Burford, Wm. B., Indianapolis, Ind.  
 Carter's Ink Co., 172 Columbus Ave., Boston, Mass.  
 Gerber, Henry, 93 Nassau St., New York.  
 Hull Manufacturing Co., 99 Madison St., Chicago, Ill.  
 Little, A. P., Rochester, N. Y.  
 New York Carbon and Transfer Paper Co., 107 Liberty St., New York.  
 Richmond & Backus Co., The, Detroit, Mich.  
 Underwood & Co., John, 30 Vesey St., New York.  
 Webster Co., F. S., Boston, Mass.  
 Woodward & Tiernan Co., The, St. Louis, Mo.  
 Wyckoff, Seamans & Benedict, 327 Broadway, New York.

## 1576 RINGS—Vulcabeston—

Johns Manufacturing Co., H. W., 100 William St., New York.

## 1577 RIVETS—

AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill. See ad. inside front cover.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Chicago Tack Co., 7800 Woodlawn St., Chicago, Ill.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Grand Crossing Track Co., Grand Crossing, Ill.  
 H. P. Nail Co., Cleveland, Ohio.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Kansas City Bolt and Nut Co., Kansas City, Mo.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lamson & Sessions Co., Cleveland, Ohio.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 Michigan Bolt and Nut Works, Detroit, Mich.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Oliver Iron and Steel Co., Pittsburg, Pa.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 1578 RIVETS—Belt—

American Screw Co., Providence, R. I.  
 Atlas Tack Corporation, Taunton, Mass.  
 KINSEY C., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Plume & Atwood Manufacturing Co., Waterbury, Conn.  
 Standard Rivet Co., 41 Lincoln St., Boston, Mass.

1579 RIVETS—Boller—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 National Bolt, Nut and Rivet Works, Reading, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Severance, Samuel, 51 Water St., Pittsburg, Pa.  
 Sternbergh & Son, J. H., Reading, Pa.  
 Vulcanus Forging Co., The, 965 Hamilton St., Cleveland, Ohio.

1580 RIVETS—Brass—

Atlas Tack Corporation, Taunton, Mass.  
 Bridgeport Brass Co., Bridgeport, Conn.  
 Cobb & Drew, Plymouth, Mass.  
 Detroit Copper and Brass Rolling Mills, Detroit, Mich.  
 Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1581 RIVETS—Bridge—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lincoln Iron Works, Boonton, N. J.  
 National Bolt, Nut and Rivet Works, Reading, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Severance, Samuel, 51 Water St., Pittsburg, Pa.  
 Sternbergh & Son, J. H., Reading, Pa.  
 Vulcanus Forging Co., The, 965 Hamilton St., Cleveland, Ohio.

1582 RIVETS—Copper—

American Brass Co., Waterbury, Conn.  
 Ansonia Brass and Copper Co., 19 Cliff St., New York.  
 Atlas Tack Corporation, Taunton, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1583 RIVETS—Iron—

Allentown Rolling Mills, Allentown, Pa.  
 American Screw Co., Providence, R. I.  
 Bourne & Knowles Manufacturing Co., Cleveland, Ohio.  
 Carrol-Porter Boiler and Tank Co., Pittsburg, Pa.  
 Columbus Bolt Works, Columbus, Ohio.  
 Diamond State Steel Co., Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Livermore Foundry and Machine Co., Memphis, Tenn.  
 Pennsylvania Bolt and Nut Co., Lebanon, Pa.  
 Pittsburg Forge and Iron Co., Pittsburg, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Severance, Samuel, 51 Water St., Pittsburg, Pa.  
 Trenton Iron Co., Trenton, N. J.  
 Upson Nut Co., Unionville, Conn.

1584 RIVETS—Steel Boiler—

Illinois Steel Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

1585 RIVETS—Steel—Structural—

Illinois Steel Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

## 1586 RIVETS—Tinned—

American Screw Co., Providence, R. I.  
 Atlas Tack Corporation, Taunton, Mass.  
 Clark & Cowles, Plainville, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Standard Rivet Co., 41 Lincoln St., Boston, Mass.

## 1587 RIVET HOLDERS—ON—

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago,  
 Ill. See ad. page B 2.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 1588 RIVET SETS—

CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago,  
 Ill. See ad. page B 2.  
 Iron City Tool Works, Pittsburg, Pa.

## 1589 ROCKER SHAFTS—Locomotive—

Pratt & Letchworth Co., Buffalo, N. Y.

## 1590 RODS—Anchor—

Vulcanus Forging Co., The, 965 Hamilton St., Cleveland, Ohio.

## 1591 RODS—Connecting—

Bethlehem Steel Co., S. Bethlehem, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Dickson Manufacturing Co., Scranton, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 Pratt & Letchworth Co., Buffalo, N. Y.

## 1592 ROLLERS—Shade—

Dayton Manufacturing Co., Dayton, Ohio.  
 Hartshorn Co., Stewart, E., Newark, N. J.

## 1593 ROLLERS—Sliding Door—

Lane Bros. Co., Poughkeepsie, N. Y.  
 New England Butt Co., Providence, R. I.  
 Russell & Erwin Manufacturing Co., 45 Chambers St., New York.  
 Spencer's Sons, I. S., Guilford, Conn.  
 Stearns & Co., E. C., Syracuse, N. Y.  
 Wrightsville Hardware Co., Wrightsville, Pa.

## 1594 ROLLERS—Steam Road—

Austin Manufacturing Co., F. C., Harvey, Ill.  
 Buffalo Pitts Co., Buffalo, N. Y.  
 Enterprise Manufacturing Co., Columbiana, Ohio.  
 Haven Co., James L., 56 Plum St., Cincinnati, Ohio.  
 Indiana Road Machine Co., Fort Wayne, Ind.  
 Kelly Co., O. S., Springfield, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Russell & Co., Massillon, Ohio.

1595 ROOFS—Car—

BIRD & SON, F. W., E. Walpole, Mass. See ad. page A 3.  
Hutchins & Sons, C. B., Detroit, Mich.  
TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
St. Louis, Mo. See ad. page A 5.  
Western Railway Equipment Co., St. Louis, Mo.

1596 ROOFS—Car—Iron—

Cincinnati Corrugating Co., Piqua, Ohio.  
Drake & Weirs Co., The, Cleveland, Ohio.  
Hutchins & Sons, C. B., Detroit, Mich.  
Murphy Manufacturing Co., P. H., 210 Vine St., St. Louis, Mo.

1597 ROOFS—Car—Plastic—

Drake & Weirs Co., The, Cleveland, Ohio.  
Hutchins & Sons, C. B., Detroit, Mich.  
TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
St. Louis, Mo. See ad. page A 5.

1598 ROOFS—Car—Steel—

Excelsior Car Roof Co., Chemical Bldg., St. Louis, Mo.

1599 ROOFS—Iron—

Bartlett, Hayward & Co., Baltimore, Md.  
Berlin Iron Bridge Co., E. Berlin, Conn.  
Cartter & Co., M. S., 202 Laclede Bldg., St. Louis, Mo.  
Conner & Co. (Inc.), Charles H., Louisville, Ky.  
Cornell, J. B. & J. M., 26th St. and 11th Ave., New York.  
Dimond, Thomas, 128 W. 33d St., New York.  
Edge Moor Iron Co., Wilmington, Del.  
Globe Iron Works, 35 Indiana St., Chicago, Ill.  
Jackson Architectural Iron Works, 315 E. 28th St., New York.  
Pennsylvania Steel Co., Steelton, Pa.  
Pittsburg Bridge Co., Pittsburg, Pa.  
Riter-Conley Manufacturing Co., Pittsburg, Pa.  
SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
Stacey Manufacturing Co., 239 Mill St., Cincinnati, Ohio.  
Trenton Iron Co., Trenton, N. J.  
Wrought Iron Bridge Co., Canton, Ohio.

1600 ROOFS—Steel—

Berlin Iron Bridge Co., East Berlin, Conn.  
Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
Detroit Bridge and Iron Works, Detroit, Mich.  
Pennsylvania Steel Co., Steelton, Pa.  
Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
Shiffler Bridge Co., Pittsburg, Pa.  
Wrought Iron Bridge Co., Canton, Ohio.

1601 ROOFING—Asbestos—

Chicago Fire Proof Covering Co., Chicago, Ill.  
Johns Manufacturing Co., H. W., 100 William St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
St. Louis, Mo. See ad. page A 5.  
Watson Co., H. F., Erie, Pa.

## 1602 ROOFING—Asphalt—

BIRD & SON, F. W., East Walpole, Mass. See ad. page A 3.  
 Drake & Wiers Co., The, Cleveland, Ohio.  
 EASTERN GRANITE ROOFING CO., THE, Jersey City, N. J.  
 See ad. page A 6.  
 Garrett Manufacturing Co., 290 Broadway, New York.  
 TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.  
 Warren Chemical and Mfg. Co., 81 Fulton St., New York.  
 Watson Co., H. F., Erie, Pa.

## 1603 ROOFING—Car—

BIRD & SON, F. W., East Walpole, Mass. See ad. page A 3.  
 Cincinnati Corrugating Co., Piqua, Ohio.  
 Drake & Wiers Co., The, Cleveland, Ohio.  
 Fay Manila Roofing Co., 516 Point St., Camden, N. J.  
 Mershon & Co., Wm. B., E. Saginaw, Mich.  
 TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.  
 Watson Co., H. F., Erie, Pa.

## 1604 ROOFING—Cement—

Carey Manufacturing Co., Philip, Cincinnati, Ohio.  
 Garry Iron and Steel Roofing Co., Merwyn St., Cleveland, Ohio.  
 Hart, C. W., Troy, N. Y.  
 TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.

## 1605 Roofing—Corrugated—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

## 1606 ROOFING—Corrugated and Formed—

Aetna-Standard Iron and Steel Co., Bridgeport, Ohio.  
 Caldwell & Peterson Manufacturing Co. (Inc.), Wheeling, W. Va.  
 Cincinnati Corrugating Co., Piqua, Ohio.  
 Harry Steel Works, O. K., St. Louis, Mo.  
 Hyndman Steel Roofing Co., 318 E. 2d St., Cincinnati, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Wheeling Corrugating Co., 81 Fulton St., New York.

## 1607 ROOFING—Felt—

Armitage Manufacturing Co., The, Richmond, Va.  
 BIRD & SON, F. W., East Walpole, Mass. See ad. page A 3.  
 Barrett Manufacturing Co., 290 Broadway, New York.  
 Childs, W. H. H., 73 Maiden Lane, New York.  
 McClintock & Irvine, South and Snowden Sts., Allegheny, Pa.  
 Mica Roofing Co., 100 William St., New York.  
 New England Felt Roofing Works, 22 Milk St., Boston, Mass.  
 Standard Paint Co., 83 John St., New York.  
 TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.  
 Watson Co., H. F., Erie, Pa.

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### A1607 ROOFING—Flexible—

TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
St. Louis, Mo. See ad. page A 5.

### R1607 ROOFING—Gravel—

ZELNICKER, W. A., St. Louis, Mo. See ad. page A 5.

### 1608 ROOFING—Granite—

EASTERN GRANITE ROOFING CO., THE, Jersey City, N. J.  
See ad. page A 6.

TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
St. Louis, Mo. See ad. page A 5.

### 1600 ROOFING—Iron—

Aetna-Standard Iron and Steel Co., Bridgeport, Ohio.

Bergen Manufacturing Co., Canton, Ohio.

Cincinnati Corrugating Co., Piqua, Ohio.

Davis & Farmer Manufacturing Co., Waltham, Mass.

Erwin & Co., S. L., Ladonia, Tex.

Garry Iron and Steel Roofing Co., Cleveland, Ohio.

Hyndman Steel Roofing Co., 318 E. 2d St., Cincinnati, Ohio.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

Livermore Foundry and Machine Co., Memphis, Tenn.

New Jersey Steel and Iron Co., Trenton, N. J.

Sykes Iron and Steel Roofing Co., Niles, Ohio.

Thompson Manufacturing Co., Cleveland, Ohio.

Van Noorden & Co., E., 383 Harrison Ave., Boston, Mass.

Wheeling Corrugating Co., 81 Fulton St., New York.

### 1610 ROOFING—Magnesia Flexible Cement—

Carey Mfg. Co., The Philip, 415 E. Pearl St., Cincinnati, Ohio.

### 1611 ROOFING—Manilla Water Proof—

Fay Manilla Roofing Co., 516 Point St., Camden, N. J.

### A1611 ROOFING—Neponset—

BIRD & SON, F. W., East Walpole, Mass. See ad. page A 3.

### 1612 ROOFING—Paroid—

BIRD & SON, F. W., East Walpole, Mass. See ad. page A 3.

### A1612 ROOFING—Ready—

BIRD & SON, F. W., East Walpole, Mass. See ad. page A 3.

### B1612 ROOFING—Rubber Feltine—

TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
St. Louis, Mo. See ad. page A 5.

### 1613 ROOFING—Slate—

Auld & Conger, Cleveland, Ohio.

Bangor Excelsior Slate Co., Easton, Pa.

Mesker & Bro., 421 S. 6th St., St. Louis, Mo.

Monson-Burnah Slate Co., Portland, Me.

Old Bangor Slate Co., Bethlehem, Pa.

Penrhyn Slate Co., 101 E. 17th St., New York.

Slatington-Bangor Slate Syndicate, Slatington, Pa.



1614 ROOFING—Steel—

Caldwell & Peterson Manufacturing Co. (Inc.), Wheeling, W. Va.  
 Cambridge Roofing Co., Cambridge, Ohio.  
 Cincinnati Corrugating Co., Piqua, Ohio.  
 Hyndman Steel Roofing Co., 318 E. 2d St., Cincinnati, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 St. Paul Roofing Cornice and Ornament Co., St. Paul, Minn.  
 Souther Iron Co., E. E., 932 N. 2d St., St. Louis, Mo.  
 Wheeling Corrugating Co., 81 Fulton St., New York.

1615 ROOFING—Tar Asphalt—

TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.  
 Watson Co., H. F., Erie, Pa.

1616 ROOFING—Tarred—

Barrett Manufacturing Co., Chicago, Ill.  
 Mica Roofing Co., 100 William St., New York.  
 Warren Chemical and Mfg. Co., 81 Fulton St., New York.  
 TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.  
 Watson Co., H. F., Erie, Pa.

1617 ROOFING—Tarred Felt—

TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.

1618 ROOFING—V-Crimped—Steel—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

1619 ROOFING—Vitrified Tile—

Clark & Sons, N. (Inc.), San Francisco, Cal.  
 Clay Shingle Co., Indianapolis, Ind.  
 Ewart & Co., J. C., Akron, Ohio.

1620 ROOFING MATERIALS—

BIRD & SON, F. W., East Walpole, Mass.  
 Cortright Metal Roofing Co., 50 N. 23d St., Philadelphia, Pa.  
 Drake & Wiers Co., The, Cleveland, Ohio.  
 EASTERN GRANITE ROOFING CO., Jersey City, N. J. See  
 ad. page A 6.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 Mica Roofing Co., 100 William St., New York.  
 TRINIDAD ASPHALT MANUFACTURING CO., 320 S. 21st St.,  
 St. Louis, Mo. See ad. page A 5.  
 U. S. Paving Co., 182 Broadway, New York.  
 Watson Co., H. F., Erie, Pa.

1621 ROPE—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.

1621 ROPE—Continued.

Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Leschen & Sons Rope Co., A., St. Louis, Mo.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Samson Cordage Works, 115 Congress St., Boston, Mass.  
 Standard Rope and Twine Co., 287 Broadway, New York.  
 Travers Bros. Co., 107 Duane St., New York.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1622 ROPE—Asbestos—

Carey Manufacturing Co., Philip, 415 E. Pearl St., Cincinnati.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Watson Co., H. F., Erie, Pa.

1623 ROPE—Cotton—

Bibb Manufacturing Co., Macon, Ga.  
 Briggs & Co., H. A., Pawtucket, R. I.  
 Columbia Mills Co., Columbia, S. C.  
 Hodson, John M., 525 Leverington Ave., Philadelphia, Pa.  
 Hooper & Sons, Wm. E., Baltimore, Md.  
 Jackson & Son, Thomas, Reading, Pa.  
 January & Wood Co., Maysville, Ky.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Samson Cordage Works, 115 Congress St., Boston, Mass.

1624 ROPE—Derrick—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Leschen & Sons Rope Co., A., 920 N. Main St., St. Louis, Mo.  
 New Bedford Cordage Co., New Bedford, Mass.  
 Standard Rope and Twine Co., 287 Broadway, New York.

1625 ROPE—Elevator—

Akron Twine and Cordage Co., Akron, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Leschen & Sons Rope Co., A., 920 Main St., St. Louis, Mo.  
 Mount Vernon Co., Baltimore, Md.  
 New Bedford Cordage Co., New Bedford, Mass.

1626 ROPE—Manilla and Sisal—

Carlin's Sons, Thomas, Allegheny, Pa.  
 Columbia Cordage Co., Auburn, N. Y.  
 Galveston Rope Co., Galveston, Tex.  
 Jackson & Son, Thomas, Reading, Pa.  
 • Kelly Co., R. A., Xenia, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**1626 ROPE—Manilla and Sisal—**

Lawrence Cordage Works, 46 South St., New York.  
 Leschen & Sons Rope Co., A., 920 Main St., St. Louis, Mo.  
 New Bedford Cordage Co., New Bedford, Mass.  
 Standard Rope and Twine Co., 287 Broadway, New York.  
 Tubbs Cordage Co., San Francisco, Cal.

**1627 ROPE—Phosphor Bronze Wire—**

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. inside front cover.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Phosphor Bronze Smelting Co. (Ltd.), 2200 Wash. Ave., Philadelphia, Pa.

**1628 ROPES—Switching—**

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Hazard Manufacturing Co., Wilkesbarre, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Leschen & Sons Rope Co., A., St. Louis, Mo.

**1631 ROPE—Tarred Manilla—**

Jacobs Cordage Co., Cincinnati, Ohio.  
 Leschen & Sons Rope Co., A., St. Louis, Mo.  
 New Bedford Cordage Co., New Bedford, Mass.  
 Standard Rope and Twine Co., 287 Broadway, New York.

**1632 ROPE—Wire—**

AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill.  
 See ad. inside front cover.  
 Broderick & Bascom Rope Co., St. Louis, Mo.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Charter Gas Engine Co., Sterling, Ill.  
 Contractors' Plant Manufacturing Co., 129 Erie St., Buffalo, N. Y.  
 Dewitt Wire Cloth Co., 17 Warren St., New York.  
 Hazard Manufacturing Co., Wilkesbarre, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Leschen & Sons Rope Co., 920 Main St., St. Louis, Mo.  
 Ludlow-Saylor Wire Co., 116 S. 4th St., St. Louis, Mo.  
 Macomber & Whyte Rope Co., 19 S. Canal St., Chicago, Ill.  
 Phosphor Bronze Smelting Co. (Ltd.), 2200 Wash. Ave., Philadelphia, Pa.  
 Prentiss & Co., G. W., Holyoke, Mass.  
 Trenton Iron Co., Trenton, N. J.  
 Williamsport Wire Rope Co., Williamsport, Pa.

**1633 ROPE—Wire Bridge Cables—**

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. inside front cover.

**1634 SAFES—Burglar and Fire Proof—**

Barnes Safe and Lock Co., Pittsburg, Pa.  
 Cincinnati Safe and Lock Co., Elm St., Cincinnati, Ohio.  
 Detroit Safe Co., Detroit, Mich.  
 Diebold Safe and Lock Co., Canton, Ohio.

1634 SAFES—Burglar and Fire Proof—Continued.

Hall's Safe and Lock Works, 183 W. Pearl St., Cincinnati, Ohio.  
 Herring-Hall Marvin Co., 54 Bleecker St., New York.  
 Koken Iron Works, St. Louis, Mo.  
 Macneale & Urban Co., Hamilton, Ohio.  
 Marvin Safe Co., 54 Bleecker St., New York.  
 Mosler Safe Co., Hamilton, Ohio.  
 National Safe and Lock Co., Cleveland, Ohio.  
 Victor Safe and Lock Co., Broadway and 9th Sts., Cincinnati.

1635 SALT—

Bliss, A. T., Saginaw, Mich.  
 Brownlee & Co., Detroit, Mich.  
 Buckley & Douglas Lumber Co., Manistee, Mich.  
 Carter & Co., J. I., Detroit, Mich.  
 Coleridge Coal and Salt Co., Pomeroy, Ohio.  
 Eddy & Sons, C. K., Saginaw, Mich.  
 Empire Dairy Salt Co., Nassau, N. Y.  
 Freeman, Hoyt H., Syracuse, N. Y.  
 Hartford City Salt Co. (Inc.), Hartford, W. Va.  
 Hawley Salt Co., Warsaw, N. Y.  
 Huber & Fuhrman Drug Mills, Fond du Lac, Wis.  
 Hutchinson Salt and Manufacturing Co., Hutchinson, Kas.  
 Ithaca Salt Co., Ithaca, N. Y.  
 Johnson & Co., T. F., Newark, N. J.  
 Loud & Sons Lumber Co., H. M., Oscoda, Mich.  
 Nevada Salt and Borax Co., San Francisco, Cal.  
 Pitts & Co., Bay City, Mich.  
 Plummer Bros., Newark, Cal.  
 Wadsworth Salt Co., Wadsworth, Ohio.  
 Warsaw Salt Co., Warsaw, N. Y.

1636 SAND—Engine—

GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.  
 See ad. page A 2.

1637 SAND—Furnace (or White Silica)—

GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.  
 See ad. page A 2.

1638 SAND—Molding, and Core—

GARDEN CITY SAND CO., THE, Security Bldg, Chicago, Ill.  
 See ad. page A 2.

A1638 SAND—Silica—

GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.  
 See ad. page A 2.

B1638 SAND—White—

GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.  
 See ad. page A 2.

1640 SAND DRYERS—

Buck Manufacturing Co., M. M., St. Louis, Mo.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Parkhurst & Wilkinson Co., Chicago, Ill.

## 1641 SANDERS—Painters'—

Reilley Bros., 322 W. 41st St., New York.

## 1642 SANDERS—Track—

American Locomotive Sander Co., Philadelphia, Pa.  
U. S. Metallic Packing Co., 427 N. 13th St., Philadelphia, Pa.  
Western Railway Equipment Co., St. Louis, Mo.

## 1643 SAWS AND SAW TOOLS—

Atkins & Co., E. C., Indianapolis, Ind.  
BARRY SAW AND SUPPLY CO., W. B., Indianapolis, Ind.  
Battle Creek Steam Pump Co., Battle Creek, Mich  
Bishop & Co., George H., Lawrenceburg, Ind.  
Bostwick-Braun Co., The, Toledo, Ohio.  
Buck Manufacturig Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Disston & Sons, Henry, Tacony and N. Front Sts., Philadelphia.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Freeman & Sons Manufacturing Co., S., Racine, Wis.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C W., 45 Broadway, New York.  
James & Co. (Inc.), Chattanooga, Tenn.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
Pacific Saw Manufacturing Co., San Francisco, Cal.  
Philadelphia Tool and Machine Co., 23d St. and Wash. Ave., Philadelphia, Pa.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 1644 SAW BLADES—Band—

American Saw Co., Trenton, N. J.  
American Wood Working Machine Co., 141 Broadway, New York.  
Atkins & Co., E. C., Indianapolis, Ind.  
BARRY SAW AND SUPPLY CO., W. B., Indianapolis, Ind.  
CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
Disston & Sons, Henry, Tacony and N. Front Sts., Philadelphia.  
Emerson, Smith & Co. (Ltd.), Beaver Falls, Pa.  
Fay & Egan Co., J. A., Cincinnati, Ohio.  
Greenlee Bros. & Co., 225 W. 12th St., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Pacific Saw Manufacturing Co., San Francisco, Cal.  
Simonds Manufacturing Co., Fitchburg, Mass.

## 1645 SAWS—Circular—

American Saw Co., Trenton, N. J.  
American Wood Working Machine Co., 141 Broadway, New York.  
Appleton Manufacturing Co., Batavia, Ill.  
Atkins & Co., E. C., Indianapolis, Ind.  
Baldrige & Hogan Saw Co., 7 Vine St., Cincinnati, Ohio.

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1645 SAWS—Circular—Continued.

BARRY SAW AND SUPPLY CO., W. B., Indianapolis, Ind.  
 CARSE BROS. CO., Chicago, Ill. See ad. page A 3.  
 Disston & Sons, Henry, Tacony and N. Front Sts., Philadelphia.  
 Fay & Egan Co., J. A., Cincinnati, Ohio.  
 Gerlach & Co., Peter, Cleveland, Ohio.  
 Greenlee Bros. & Co., 225 W. 12th St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McNiece & Son, Wm., 515 Cherry St., Philadelphia, Pa.  
 Oldham & Sons, Joshua, 351 E. 61st St., Brooklyn, N. Y.  
 Pacific Saw Manufacturing Co., San Francisco, Cal.  
 Seneca Falls Manufacturing Co., Seneca Falls, N. Y.  
 Simonds Manufacturing Co., Fitchburg, Mass.  
 Spalding Saw Co., N. W., 17 Fremont St., San Francisco, Cal.  
 U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad.  
 page A 2.

A1645 SAWS—Concave—

BARRY SAW AND SUPPLY CO., W. B., Indianapolis, Ind.

1646 SAWS—Cross Cut—

Atkins & Co., E. C., Indianapolis, Ind.  
 Bostwick Braun Co., The, Toledo, Ohio.  
 Branch Saw Co., St. Louis, Mo.  
 Buck Manufacturing Co., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Curtis & Co. Manufacturing Co., Washington Ave., St. Louis, Mo.  
 Disston & Sons, Henry, Tacony and N. Front Sts., Philadelphia.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chatanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 National Saw Co., Newark, N. J.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pacific Saw Manufacturing Co., San Francisco, Cal.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Simonds Manufacturing Co., Fitchburg, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1647 SAWS—Hack—

American Saw Co., Trenton, N. J.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.

## 1647 SAWS—Hack—Continued.

James & Co. (Inc.), Chattanooga, Tenn.  
 Jennings & Co., C. E., 79 Reade St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Starrett Co., L. S., Athol, Mass.  
 Thompson & Sons, H. G., New Haven, Conn.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 1648 SAWS—Hand—

American Saw Co., Trenton, N. J.  
 Atkins & Co., E. C., Indianapolis, Ind.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Jennings & Co., C. E., 79 Reade St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 National Saw Co., Newark, N. J.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## A1648 SAWS—Heading and Shingle—

BARRY SAW AND SUPPLY CO., W. B., Indianapolis, Ind.

## 1649 SAWS—Ice—

American Saw Co., Trenton, N. J.  
 Atkins & Co., E. C., Indianapolis, Ind.  
 Barry Saw and Supply Co., Indianapolis, Ind.  
 Disston & Sons, Henry, Tacony and N. Front Sts., Philadelphia.  
 Hoe & Co., R., 504 Grand St., New York.  
 Knickerbocker Ice Co., 6th and Arch Sts., Philadelphia, Pa.  
 Michigan Saw Co., Saginaw, Mich.

## 1650 SAWS—Lathe and Scroll—Combined—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Shipman Manufacturing Co., Rochester, N. Y.

## 1651 SAWS—Scroll—

American Wood Working Machine Co., 141 Broadway, New York.  
 Atkins & Co., E. C., Indianapolis, Ind.  
 Barry Saw and Supply Co., W. B., Indianapolis, Ind.

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### 1651 SAWS—Scroll—Continued.

Battle Creek Steam Pump Co., Battle Creek, Mich.  
Buss Machine Works, Grand Rapids, Mich.  
Cordesman Machine Co., 27 Butler St., Cincinnati, Ohio.  
Fay & Egan Co., J. A., Cincinnati, Ohio.  
Frank Machinery Co., Buffalo, N. Y.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Seneca Falls Manufacturing Co., Seneca Falls, N. Y.  
Smith Machine Co., Smithville, N. J.

### A1651 SAWS—Self-Feed—

Smith Machine Co., Smithville, N. J.

### B1651 SAWS—Swing—

Smith Machine Co., Smithville, N. J.

### 1652 SAWS—Steel Rail—

Industrial Works, Bay City, Mich.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Q. & C. Co., Chicago, Ill.

### 1653 SAWS—Veneering—

American Saw Co., Trenton, N. J.  
Atkins & Co., E. C., Indianapolis, Ind.  
Barry Saw and Supply Co., W. B., Indianapolis, Ind.  
Disston & Sons, Henry, Tacony and N. Front Sts., Philadelphia.  
Hoe & Co., R., 504 Grand St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
National Saw Co., Newark, N. J.

### A1653 SAW MILLS—

CHANDLER & TAYLOR CO., Indianapolis, Ind.  
SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.

### B1653 SAW GUMMERS—

Barry Saw and Supply Co., Indianapolis, Ind.

### C1653 SAW SWAGES—

Barry Saw and Supply Co., Indianapolis, Ind.

### 1654 SCALES—Automatic—

Buffalo Scale Co., Buffalo, N. Y.  
Case Manufacturing Co., Columbus, Ohio.  
Fairbanks, Morse & Co., Franklin and Monroe Sts., Chicago, Ill.  
Page, Dennis & Co., 341 Broadway, New York.  
Pratt & Whitney Co., Hartford, Conn.

### 1655 SCALES—Computing—

Computing Scale Co., Dayton, Ohio.  
Kohlbusch, Herman, 59 Nassau St., New York.  
Read Manufacturing Co., Erie, Pa.



## 1656 SCALES—Counter—

Buffalo Scale Co., Buffalo, N. Y.  
Chatillon & Sons, John, 85 Cliff St., New York.  
Fairbanks, Morse & Co., Franklin and Monroe Sts., Chicago, Ill.  
Howe Scale Co. of 1886, Rutland, Vt.  
Kinzer & Jones Manufacturing Co., Pittsburg, Pa.  
Lowell Scale Co., Lowell, Mass.  
Page, Dennis & Co., 341 Broadway, New York.  
STANDARD SCALE AND SUPPLY CO. (LTD.), THE, Pittsburg, Pa. See ad. page A 5.  
Troemner, Henry, 710 Market St., Philadelphia, Pa.

## A1656 SCALES—Dormant—

STANDARD SCALE AND SUPPLY CO., Pittsburg, Pa. See ad. page A 5.

## 1657 SCALES—Platform—

Buffalo Scale Co., Buffalo, N. Y.  
Chicago Scale Co., 292 W. Jackson Boul., Chicago, Ill.  
Fairbanks, Morse & Co., Franklin and Monroe Sts., Chicago, Ill.  
Howe Scale Co. of 1886, Rutland, Vt.  
Jones of Binghamton, Binghamton, N. Y.  
Knowles Scale Co., Lowell, Mass.  
Lowell Scale Co., Lowell, Mass.  
STANDARD SCALE AND SUPPLY CO. (LTD.), THE, Pittsburg, Pa. See ad. page A 5.

## 1658 SCALES—Portable—

STANDARD SCALE AND SUPPLY CO. (LTD.), THE, Pittsburg, Pa. See ad. page A 5.

## 1659 SCALES—Recording—

Streeter-Amet Weighing and Recording Co., 665 Rookery, Chicago, Ill.

## 1660 SCALES—Track—

Buffalo Scale Co., Buffalo, N. Y.  
Chicago Scale Co., 292 W. Jackson Boul., Chicago, Ill.  
Fairbanks, Morse & Co., Chicago, Ill.  
Jones of Binghamton, Binghamton, N. Y.  
STANDARD SCALE AND SUPPLY CO. (LTD.), THE, Pittsburg, Pa. See ad. page A 5.

## 1661 SCALES—Wagon—

Brunner, Charles, Peru, Ill.  
Buffalo Scale Co., Buffalo, N. Y.  
Chicago Scale Co., 292 W. Jackson Boul., Chicago, Ill.  
Fairbanks, Morse & Co., Chicago, Ill.  
Jones of Binghamton, Binghamton, N. Y.  
Moline Pump Co., Moline, Ill.  
STANDARD SCALE AND SUPPLY CO. (LTD.), THE, Pittsburg, Pa. See ad. page A 5.  
United States Scale Co., Terre Haute, Ind.

1662 SCALES AND BALANCES—Letter—

Brooks & Co., Cleveland, Ohio.  
Brown & Sharpe Manufacturing Co., Providence, R. I.  
Buffalo Scale Co., Buffalo, N. Y.  
Burford, Wm. B., Indianapolis, Ind.  
Howe Scale Co., 341 Broadway, New York.  
Kaestner & Co., Charles, 245 Jefferson St., Chicago, Ill.  
Lauders, Frary & Clark, New Britain, Conn.  
Pelouze Scale and Manufacturing Co., 133 S. Clinton St., Chicago.  
Richmond & Backus Co., The, Detroit, Mich.  
Woodward & Tiernan Co., The, St. Louis, Mo.

1663 SCRAPERS—Drag—

Adams & Co., J. D., Indianapolis, Ind.  
American Road Machine Co., Kenneth Square, Pa.  
American Steel Scraper Co., Sidney, Ohio.  
Austin Manufacturing Co., F. C., Harvey, Ill.  
Bement & Sons, E., Lansing, Mich.  
Brennan & Co., Louisville, Ky.  
Haven Co., James L., Cincinnati, Ohio.  
Hocking Valley Manufacturing Co., Lancaster, Ohio.  
Hubbard, H. N., 18 Cliff St., New York.  
Jackson Flue Scraper Co., Jackson, Mich.  
Kansas City Wheel Scraper Co., Kansas City, Mo.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Matteson & Williamson Manufacturing Co., Stockton, Cal.  
Peckham Co., J. S. & M., Utica, N. Y.  
Syracuse Chilled Plow Co., Syracuse, N. Y.  
Thompson & Sons Manufacturing Co., J., Beloit, Wis.  
Weir Plow Co., Monmouth, Ill.  
Western Wheeled Scraper Co., Aurora, Ill.

1664 SCRAPERS—Drag—Revolving—

American Steel Scraper Co., Sidney, Ohio.  
Austin Manufacturing Co., F. C., Harvey, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Western Wheeled Scraper Co., Aurora, Ill.

1665 SCRAPERS—Painters'—

Stortz & Son, John, 210 Vine St., Philadelphia, Pa.

1667 SCRAPERS—Wheeled—

American Road Machine Co., Kenneth Square, Pa.  
American Steel Scraper Co., Sidney, Ohio.  
Austin Manufacturing Co., F. C., Harvey, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Western Wheeled Scraper Co., Aurora, Ill.

1668 SCREENS—Coal—

Aitchison Perforated Metal Co., Robt., 303 Dearborn St., Chicago.  
Barbee Wire and Iron Works, 44 Dearborn St., Chicago, Ill.  
Barnum, E. T., Detroit, Mich.  
Beckley & Co., A. J., Garwood, N. J.  
Bromwell Brush and Wire Goods Co., Cincinnati, Ohio.  
Cheney-Bigelow Wire Works, Springfield, Mass.

## 1668 SCREENS—Coal—Continued.

Clinton Wire Cloth Co., Clinton, Mass.  
 Darby & Sons, Edward, 233 Arch St., Philadelphia, Pa.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Hendrick Manufacturing Co. (Ltd.), The, Carbondale, Pa.  
 Howard & Morse, 45 Fulton St., New York.  
 Jeffrey Manufacturing Co., Columbus, Ohio.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Ludlow-Saylor Wire Co., St. Louis, Mo.  
 Meyers Manufacturing Co., Fred J., Hamilton, Ohio.  
 Michigan Wire and Iron Works, Detroit, Mich.  
 Vulcan Iron Works, Wilkesbarre, Pa.

## 1669 SCREENS—Rock—

Gates Iron Works, Chicago, Ill.

## 1670 SCREENS—Sand—

Barbee Wire and Iron Works, 44 Dearborn St., Chicago, Ill.  
 Brownwell Brush and Wire Goods Co., Cincinnati, Ohio.  
 Cheney-Bigelow Wire Works, Springfield, Mass.  
 Day & Co., J. H., Cincinnati, Ohio.  
 Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
 Gates Iron Works, Chicago, Ill.  
 Hopkins & Co., 198 W. Broadway, New York.  
 Ludlow-Saylor Wire Co., St. Louis, Mo.  
 Meyers Manufacturing Co., Fred J., Hamilton, Ohio.  
 Minneapolis Wire and Iron Works (Inc.), Minneapolis, Minn.  
 Whiting Foundry Equipment Co., Harvey, Ill.

## 1671 SCREWS—

Blake & Johnson, Waterbury, Conn.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Buffalo Bolt Co., Buffalo, N. Y.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Chicago Screw Co., 96 W. Washington St., Chicago, Ill.  
 Cincinnati Screw and Tap Co., Cincinnati, Ohio.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Haskell Co., William, Pawtucket, R. I.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Phosphor Bronze Smelting Co. (Ltd.), 2200 Wash. Ave., Philadelphia, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1672 SCREWS—Gimlet Point Coach—

Continental Bolt and Iron Works, 36 N. Franklin St., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1673 SCREWS—Lag—

Allison Manufacturing Co., 32d and Walnut Sts., Philadelphia.  
American Bolt Co., Lowell, Mass.  
Anderson Iron and Bolt Co., Anderson, Ind.  
Clark Bros. & Co., Milldale, Conn.  
Columbus Bolt Works, Columbus, Ohio.  
Continental Bolt and Iron Works, 36 N. Franklin St., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Lamson & Sessions Co., Cleveland, Ohio.  
Michigan Bolt and Nut Works, Detroit, Mich.  
Moran Bolt and Nut Manufacturing Co., St. Louis, Mo.  
Pennsylvania Bolt and Nut Co., Lebanon, Pa.  
Upson Nut Co., Unionville, Conn.  
Vulcanus Forging Co., The, 965 Hamilton St., Cleveland, Ohio.

1674 SCREWS—Machine—

American Screw Co., Providence, R. I.  
Chicago Screw Co., 96 W. Wash. St., Chicago, Ill.  
Cincinnati Screw and Tap Co., Cincinnati, Ohio.  
Haskell Co., W. H., Pawtucket, R. I.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Miles, Franklin S., 205 Quarry St., Philadelphia, Pa.  
Queen City Supply Co., 161 W. Pearl St., Cincinnati, Ohio.  
Reading Screw Co., 2720 Hope St., Philadelphia, Pa.  
Russell & Erwin Manufacturing Co., 45 Chambers St, New York.  
St. Louis Screw Co., 811 N. 2d St., St. Louis, Mo.  
Western Automatic Machine Screw Co., Elyria, Ohio.

1675 SCREWS—Phosphor Bronze—

Phosphor Bronze Smelting Co. (Ltd.), 2200 Washington Ave.,  
Philadelphia, Pa.

1676 SEALS—Car—

Brooks & Co., E. J., 51 Dey St., New York.  
Buffalo Seal and Press Co., Buffalo, N. Y.  
Dayton Malleable Iron Co., Dayton, Ohio.  
Grant Mfg. Co., 809 Water St., S. W., Washington, D. C.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
New York Stencil Works, 100 Nassau St., New York.  
Q. & C. Co., 700 Western Union Bldg., Chicago, Ill.  
Williams & Son, E. A., Jersey City, N. J.  
Woodman Manufacturing and Supply Co., The, 63 Oliver St.,  
Boston, Mass.

1677 SEATS—Car—

Adams & Westlake Co., Ontario and N. Franklin Sts., Chicago.  
Barney & Smith Car Co., Dayton, Ohio.  
Dayton Manufacturing Co., Dayton, Ohio.  
Hale & Kilburn Co., 48 N. 6th St., Philadelphia, Pa.  
Hartford Woven Wire Mattress Co., Hartford, Conn.  
Heywood Bros. & Wakefield Co., 297 Cherry St., New York.  
Scarritt, Comstock & Co., St. Louis, Mo.  
Stephenson Co., John (Ltd.), 47 E. 27th St., New York.

1678 SEATINGS—Car—

American Pegamoid Co., 339 Broadway, New York.  
McKay Curtain Co., Wilmington, Del.  
Pantasote Co., The, 29 Broadway, New York.  
Scarritt, Comstock & Co., St. Louis, Mo.  
Woodman, Joel H., Hoboken, N. J.

1679 SEPARATORS—Live and Exhaust Steam—

Davis Co., The John, 51 Michigan St., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1680 SEPARATORS—Stone—

American Clay Working Machinery Co., Bucyrus, Ohio.  
Brewer & Co., H., Tecumseh, Mich.  
Great Western Manufacturing Co., Leavenworth, Kas.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Martin Brick Machine Manufacturing Co., Lancaster, Pa.  
Penfield & Son, J. W., Willoughby, Ohio.  
Wallace Manufacturing Co., Frankfort, Ind.

1681 SETTEES—

American Desk Co., 18 E. Van Buren St., Chicago, Ill.  
Buffalo School Furniture Co., Buffalo, N. Y.  
Frost's Veneer Seating Co., Sheboygan, Wis.  
Logeman Chair Manufacturing Co., F. H., St. Louis, Mo.  
Meinecke & Son, A., Milwaukee, Wis.  
Partridge & Sons, Josiah, 358 Pearl St., New York.  
Racine Hardware Co., Racine, Wis.  
Readsboro Chair Manufacturing Co., Readsboro, Vt.  
Scarritt, Comstock & Co., St. Louis, Mo.  
Whitthurst & Co., R. W., Norfolk, Va.

1682 SETTING AND FILING FRAMES—Band Saw—

American Wood Working Machine Co., 141 Broadway, New York.  
Atkins & Co., E. C., Indianapolis, Ind.  
Cordesman, Meyer & Co., Cincinnati, Ohio.  
Detrick & Harvey Machine Co., Baltimore, Md.  
Filer & Stowell Co. (Ltd.), Milwaukee, Wis.  
Goodell & Waters, 3101 Chestnut St., Philadelphia, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1683 SHADES—Car Window—

Burrowes Co., E. T., Portland, Me.  
Chauncey Tapestry Co., Chauncey, N. Y.  
Dayton Manufacturing Co., Dayton, Ohio.  
McKay Curtain Co., Wilmington, Del.

1684 SHADES—Electric Light—

Baggott, E., 169 Adams St., Chicago, Ill.  
Gill & Co. (Inc.), York and Thompson Sts., Philadelphia, Pa.  
Gleason Manufacturing Co., E. P., New York.  
Mount Washington Glass Co., New Bedford, Mass.  
Pacific Electric Co., La Crosse, Wis.  
Utility Shade Co., Tenafly, N. J.  
Washington Glass Manufacturing Co., Washington, Pa.  
Wheeler Reflector Co., Boston, Mass.

1685 SHAFTS—Flexible—

Chicago Flexible Shaft Co., 158 Huron St., Chicago, Ill.  
 Gem Manufacturing Co., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Stow Flexible Shaft Co., N. 26th and Callowhill Sts., Philadelphia, Pa.  
 Stow Manufacturing Co., Binghamton, N. Y.

1686 SHAFTING—

Akron Iron and Steel Co., 206 Fulton St., New York.  
 Allfree Manufacturing Co., J. B., Indianapolis, Ind.  
 Allis Co., Edward P., Milwaukee, Wis.  
 American Clay Working Machinery Co., Bucyrus, Ohio.  
 AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. inside front cover.  
 American Tool and Machine Co., 109 Beach St., Boston, Mass.  
 American Wood Working Machine Co., 141 Broadway, New York.  
 Barnard & Leas Manufacturing Co., Moline, Ill.  
 Bethlehem Steel Co., S. Bethlehem, Pa.  
 Case Manufacturing Co., Columbus, Ohio.  
 Charter Gas Engine Co., Sterling, Ill.  
 Chase Turbine Manufacturing Co., Orange, Mass.  
 Chickasaw Iron Works, Memphis, Tenn.  
 Clot & Meese, San Francisco, Cal.  
 Coleman, H. Dudley, New Orleans, La.  
 Cordesman Machine Co., Butler St., Cincinnati, Ohio.  
 Cumberland Steel and Tin Plate Co., Cumberland, Md.  
 Dayton Globe Iron Works, Dayton, Ohio.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Eastwood, Benjamin, Paterson, N. J.  
 Ellicott Machine Co., Baltimore, Md.  
 Fay & Egan Co., J. A., Cincinnati, Ohio.  
 Fischer Foundry and Machine Co., Pittsburg, Pa.  
 Frick Co., Waynesboro, Pa.  
 Great Western Manufacturing Co., Leavenworth, Kas.  
 Hendy Machine Works, Joshua, San Francisco, Cal.  
 Howard Foundry and Machine Works, Philadelphia, Pa.  
 Howard Iron Works, Buffalo, N. Y.  
 Jeffrey Manufacturing Co., Columbus, Ohio.  
 Kenyon & Son, D. R., Raritan, N. J.  
 Kilburn, Lincoln & Co. (Inc.), Fall River, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lane & Bodley Co., John and Water Sts., Cincinnati, Ohio.  
 Leffel & Co., James, Springfield, Ohio.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Lombard Iron Works and Supply Co., Augusta, Ga.  
 Mansfield Machine Works, Mansfield, Ohio.  
 Medart Patent Pulley Co., 277 S. Canal St., Chicago, Ill.  
 Nordyke & Marmon Co., Indianapolis, Ind.  
 Novelty Iron Works, Dubuque, Iowa.  
 Pierson & Co., 24 West St., New York.  
 Poole & Son Co., Robert, Baltimore, Md.  
 Richmond City Mill Works, Richmond, Ind.  
 Scott, Olin, Bennington, Vt.  
 Sellers & Co. (Inc.), Wm., Philadelphia, Pa.

1686 SHAFTING—Continued.

SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
 Smith Co., S. Morgan, York, Pa.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.  
 Sulzer Machine Co., Louisville, Ky.  
 Thornburgh Creel Co., 241 Jefferson St., Chicago, Ill.  
 Twin City Iron Works, 307 S. 3d St., Minneapolis, Minn.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Walker Co., Cleveland, Ohio.  
 Webster Manufacturing Co., 1075 W. 15th St., Chicago, Ill.  
 Witte Iron Works Co., 1215 Walnut St., Kansas City, Mo.

1687 SHAFTING—Hollow—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Standard Seamless Tube Co., Pittsburg, Pa.

1689 SHAPER ATTACHMENTS—

Fitchburg Machine Works, Fitchburg, Mass.  
 Gould & Eberhardt, Newark, N. J.  
 Hendey Machine Co., Torrington, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1690 SHEATHING—Asbestos—

Carey Manufacturing Co., The Philip, 415 Pearl St., Cincinnati.  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1691 SHEAVES—Rope—

Brown Co., A. & F., 25 Dey St., New York.  
 Bullock Manufacturing Co., 1170 W. Lake St., Chicago, Ill.  
 Cresson Co., George V., 18th St. and Allegheny Ave., Philadelphia, Pa.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Fairmount Machine Co., 2106 Wood St., Philadelphia, Pa.  
 Great Western Manufacturing Co., Leavenworth, Kas.  
 Howard Iron Works, Buffalo, N. Y.  
 Jones & Laughlins (Ltd.), Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Link-Belt Machinery Co., Stewart Ave., Chicago, Ill.  
 Poole & Son Co., Robert, Baltimore, Md.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.  
 Vulcan Iron Works, Wilkesbarre, Pa.

1692 SHEAVES—Wire Rope—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Boston & Lockport Block Co., Boston, Mass.  
 Bullock Manufacturing Co., M. C., 1170 W. Lake St., Chicago, Ill.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Great Western Manufacturing Co., Leavenworth, Kas.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Nurdyke & Marmon Co., 1007 Morris St., Indianapolis, Ind.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.  
 Vulcan Iron Works, Wilkesbarre, Pa.

- 1693 SHEET METAL WORK—Architectural—  
Cincinnati Corrugating Co., Piqua, Ohio.  
Gara, McGinley & Co., 23 S. 17th St., Philadelphia, Pa.  
Lamb, J. & R., 59 Carmine St., New York.  
Mullins, W. H., Salem, Ohio.  
Wheeling Corrugating Co., 81 Fulton St., New York.
- 1694 SHEETING—Asbestos and India Rubber—Woven—  
Carey Mfg. Co., The Philip, 415 E. Pearl St., Cincinnati, Ohio.
- 1695 SHEETING—Asbestos-Metallic—  
Carey Mfg. Co., The Philip, 415 E. Pearl St., Cincinnati, Ohio.
- 1696 SHEETING—Concrete and Cement—  
Jones National Fence Co., Columbus, Ohio.
- 1697 SHELLAC BLEACHERS—  
Berry Bros. (Ltd.), Detroit, Mich.
- 1698 SHELLAC SOLVENT—  
Walker Chemical Works, Harrison, N. J.
- 1699 SHIMS—Iron—  
Vulcanus Forging Co., The, 965 Hamilton St., Cleveland, Ohio.
- A1699 SHIMS—Wood—  
Goldie, Jr., Wm., P. O. box 556, Pittsburg, Pa.
- 1700 SHINGLES—Metallic—  
Cincinnati Corrugating Co., Piqua, Ohio.  
Cincinnati Stamping Co., 386 Walnut St., Cincinnati, Ohio.  
Cortright Metal Roofing Co., 50 N. 23d St., Philadelphia, Pa.  
Garry Iron and Steel Roofing Co., Cleveland, Ohio.  
Merchant & Co. (Inc.), 517 Arch St., Philadelphia, Pa.  
Montross Metal Shingle Co., Camden, N. J.
- 1701 SHINGLES—Wooden—  
Atlanta Lumber Co., Atlanta, Ga.  
Bigelow & Co., A. A., Washburn, Wis.  
Berlin Mills Co., 404 Commercial St., Portland, Me.  
Buckley & Douglas Lumber Co., Manistee, Mich.  
Butters & Peters Salt and Lumber Co., Ludington, Mich.  
Cable Lumber Co., Davenport, Iowa.  
Clough & Hurd, Minneapolis, Minn.  
Cypress Lumber Co., Apalachicola, Fla.  
Dessert Lumber Co., Joseph, Mosinee, Wis.  
Dimock, Gould & Co., Moline, Ill.  
Grand Manufacturing Co., Oshkosh, Wis.  
Grand & Caven Lumber Co., Grand Haven, Mich.  
Hilton & Dodge Lumber Co., Darien, Ga.  
Kansas City and Southern Lumber Co., Kansas City, Mo.  
Laird-Norton Co., Winona, Minn.  
Lamb & Son (Inc.), C., Clinton, Ohio.



## 1701 SHINGLES—Wooden—Continued.

Langford & Hall Lumber Co., Fulton, Ill.  
 Lindsay & Phelps Co., Davenport, Iowa.  
 Loomis & Hart Manufacturing Co., Chattanooga, Tenn.  
 Loud & Sons Lumber Co., H. M., Oscoda, Mich.  
 Lutchter & Moore Lumber Co., Orange, Tex.  
 McMullen & Co., Minneapolis, Minn.  
 Musser Lumber Co., Muscatine, Iowa.  
 Navarro Mill Co., San Francisco, Cal.  
 Palmer, W. C. B., Robey St. and Blue Island Ave., Chicago, Ill.  
 Palmer, Fuller & Co. (Inc.), W. 22d and S. Union Sts., Chicago.  
 Philbert & Johanning Mfg. Co., 1502 Market St., St. Louis, Mo.  
 Rock Island Lumber and Manufacturing Co., Rock Island, Ill.  
 Roper Lumber Co., John L., Norfolk, Va.  
 Sawyer, Goodman & Co., 1215 Old Colony Bldg., Chicago, Ill.  
 Schuette & Co., Wm., Pittsburg, Pa.  
 Southern Pine Co. of Georgia, Savannah, Ga.  
 Standard Lumber Co., Dubuque, Iowa.  
 Vanderbilt & Hopkins, 120 Liberty St., New York.  
 Wisconsin Land and Lumber Co., Hermansville, Mich.  
 Wright Co., W. B., Pensacola, Fla.  
 Wright Lumber Co., A. W., Saginaw, Mich.  
 Young & Co. (Inc.), W. J., Clinton, Iowa.

## 1702 SHOVELS—Scoop—

American Stamping Co., 103 N. 3d St., Brooklyn, N. Y.  
 Ames & Sons Corporation, Oliver, North Easton, Mass.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Clark Co., W. J., Salem, Ohio.  
 Oorerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Hussey, Binns & Co. (Ltd.), Pittsburg, Pa.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezrh H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), N. Orleans, La.  
 Nordyke & Marmon Co., Indianapolis, Ind.  
 Philadelphia Scoop Co., 134 N. 2d St., Philadelphia, Pa.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Sommer's Son, John, Newark, N. J.  
 Terre Haute Shovel and Tool Co., Terre Haute, Ind.  
 THOMPSON, C. A., 415 N. 4th St., St. Louis. See ad. page A 5.  
 Wyoming Shovel Works, Wyoming, Pa.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1704 SHOVELS—Steam—

Bucyrus Co., The, South Milwaukee, Wis.  
 Excelsior Iron Works, 100 N. Clinton St., Chicago, Ill.  
 Hayward Co., 97 Cedar St., New York.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Industrial Works, Bay City, Mich.  
 Kingsford Foundry and Machine Works, Oswego, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Marion Steam Shovel Co., The, Marion, Ohio.  
 Montgomery Machinery Co., J. H., Denver, Col.  
 Osgood Dredge Co., Albany, N. Y.  
 Portland Co., Portland, Me.  
 Sheriffs Manufacturing Co., Milwaukee, Wis.  
 Souther & Co., John, Boston, Mass.  
 Thew Automatic Shovel Co., Lorain, Ohio.  
 Toledo Foundry and Machine Co., The, Toledo, Ohio.  
 Vulcan Iron Works, Chicago, Ill.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Vulcan Iron Works Co., Toledo, Ohio.

1705 SHOVELS—Track—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Griffiths Co., George, 513 Locust St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Hussey, Binns & Co. (Ltd.), Pittsburg, Pa.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), N. Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 St. Louis Shovel Co., Duncan Ave., St. Louis, Mo.  
 Terre Haute Shovel and Tool Co., Terre Haute, Ind.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.  
 Wyoming Shovel Works, The, Wyoming, Pa.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1706 SIDE BEARINGS—

Chicago Railway Equipment Co., Chicago, Ill.  
 Missouri Railway Equipment Co., Union Trust Bldg., St. Louis.  
 SIMPLEX RAILWAY APPLIANCE CO., Hammond, Ind., New  
 York and Chicago. See ad. page A 8.  
 Standard Railway Equipment Co., Gr't Northern Bldg., Chicago.  
 Western Railway Equipment Co., St. Louis, Mo.

1707 SIGNS—Station Limit—

Mathews Woven Wire Fence Co., Jacksonville, Ill.

1708 SIGNS—Whistle—

Mathews Woven Wire Fence Co., Jacksonville, Ill.

1709 SIGNALS—Automatic—

Allentown Rolling Mills, Allentown, Pa.

Hall Signal Co., 44 Broad St., New York.

Ramapo Iron Works, Hillburn, N. Y.

Union Switch and Signal Co., Swissvale, Pa.

1710 SIGNALS—Block—

Allentown Rolling Mills, Allentown, Pa.

Barney & Smith Car Co., Dayton, Ohio.

Union Switch and Signal Co., The, Swissvale, Pa.

1711 SIGNALS—Block—Automatic—

Allentown Rolling Mills, Allentown, Pa.

Union Switch and Signal Co., Swissvale, Pa.

1712 SIGNALS—Block—Mechanical—

Allentown Rolling Mills, Allentown, Pa.

Union Switch and Signal Co., Swissvale, Pa.

1713 SIGNALS—Crossing—

American Signal Co., Guilford and Girard Aves., Baltimore, Md.

Hall Signal Co., 44 Broad St., New York.

O'Neill Crossing Alarm Co., Cleveland, Ohio.

Parrish Signal Co., Jackson, Mich.

Pennsylvania Steel Co., Steelton, Pa.

Railroad Supply Co., The, Bedford Bldg., Chicago, Ill.

Union Switch and Signal Co., Swissvale, Pa.

1714 SIGNALS—Interlocking—

Allentown Rolling Mills, Allentown, Pa.

National Switch and Signal Co., Easton, Pa.

Standard Railroad Signal Co., Troy, N. Y.

Taylor Signal Co., Buffalo, N. Y.

Union Switch and Signal Co., Swissvale, Pa.

Weir Frog Co., Cincinnati, Ohio.

1715 SIGNALS—Junction—

Allentown Rolling Mills, Allentown, Pa.

National Switch and Signal Co., Easton, Pa.

Union Switch and Signal Co., Swissvale, Pa.

1716 SIGNALS—Pneumatic—Train—

WESTINGHOUSE AIR BRAKE CO., Pittsburg, Pa. See ad. inside back cover.

1717 SIGNALS—Railway—Fog—

Detwiller & Street Fireworks Mfg. Co., 172 Fulton St., New York.

Union Switch and Signal Co., Swissvale, Pa.

1718 SIGNALS—Station—

Allentown Rolling Mills, Allentown, Pa.

Union Switch and Signal Co., Swissvale, Pa.

1719 SIGNALS—Switch—

Allentown Rolling Mills, Allentown, Pa.  
 Baltimore Enamel Co., Baltimore, Md.  
 Hall Signal Co., 44 Broad St., New York.  
 National Switch and Signal Co., Easton, Pa.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Standard Railroad Signal Co., Troy, N. Y.  
 Union Switch and Signal Co., Swissvale, Pa.  
 Williamson & Co., Allegheny, Pa.

1720 SKIDS—

Fairbanks, Morse & Co., Chicago, Ill.  
 Lansing Wheelborrow Co., Lansing, Mich.

1721 SKIMMERS—Oil Float—Tin—

Reilly Bros., 322 W. 41st St., New York.

1722 SLACK ADJUSTERS—

Gould Coupler Co., New York.  
 Western Railway Equipment Co., St. Louis, Mo.

1723 SLATE—Roofing—

Bangor Excelsior Slate Co., Easton, Pa.

1724 SLEDGES—

Anderson & Sons, W. H., Detroit, Mich.  
 Anderson, Du Puy & Co., Pittsburg, Pa.  
 Atha Tool Co., Newark, N. J.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Collins Co., Collinsville, Conn.  
 Crerar, Adams & Co., Chicago, Ill.  
 DETROIT STEEL AND SPRING CO., Detroit, Mich. See ad.  
 page A 8.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 Iwan Bros., Streator, Ill.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lindley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), N. Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1725 SMOKE BOX FRONTS—

Pressed Steel Car Co., Pittsburg, Pa.

1726 SMOKE CONSUMERS—

Williams & Lazier, 298 Main St., Buffalo, N. Y.

1727 SMOKE STACKS—

Carlin's Sons, Thomas, Allegheny, Pa.  
 Freeman & Sons Manufacturing Co., S., Racine, Wis.  
 Frick Co., Waynesboro, Pa.  
 Harrisburg Manufacturing and Boiler Co., Harrisburg, Pa.  
 Hazleton Boiler Co., 120 Liberty St., New York.  
 Howell & Co., R. R., Minneapolis, Minn.  
 Litchfield Car Works, Litchfield, Ill.  
 Lombard Iron Works and Supply Co., Augusta, Ga.  
 Murray Iron Works Co., Burlington, Ia.  
 N. O. Roof and Metal Works, 92 LaFayette St., N. Orleans, La.  
 Pollock & Co., Wm. B., Youngstown, Pa.  
 Ritter-Conley Manufacturing Co., Pittsburg, Pa.  
 SCAIFE & SONS, WM. B., Pittsburg, Pa. See ad. page A 8.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 York Manufacturing Co., York, Pa.

1728 SMOKE STACKS—Self-Supporting—Steel—

Clonbrock Steam Boiler Co., 564 Smith St., Brooklyn, N. Y.  
 Marietta Boiler Works, Marietta, Ohio.  
 Stirling Co., 608 Pullman Bldg., Chicago, Ill.

1729 SMOKE STACKS—Steel Plate—

Davis & Farmer Manufacturing Co., Waltham, Mass.  
 Rarig Engineering Co., Columbus, Ohio.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

1730 SMOKE STACKS—Wood—

Laplin Brake Shoe Co., The, 41 Cortlandt St., New York.

1731 SMOKE STACK BONNETS—

Meyers Manufacturing Co., Fred. J., Hamilton, Ohio.

1732 SOAP—Car Cleaning—Liquid—

Modoc Soap Co., The, Cincinnati, Ohio.

1733 SOAP—Disinfectant—

Carbolic Soap Co., 230 Pearl St., New York.

1734 SOAP—Laundry—

American Soap Co., 75 Murray St., New York.  
 Babbitt, B. T., 84 Washington St., New York.  
 Detroit Soap Co., Detroit, Mich.  
 Fairbank Co., N. K., Chicago, Ill.  
 Kirk & Co., James S., 360 N. Water St., Chicago, Ill.  
 Proctor & Gamble Co., 3d and Water Sts., Cincinnati, Ohio.  
 Schulte Soap Co., Detroit, Mich.  
 Schultz & Co., Zanesville, Ohio.  
 Western Soap Co., Omaha, Neb.

## 1735-1740

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### 1735 SOAP—Mill—

Camden and Philadelphia Soap Co., Camden, N. J.  
Eagle Chemical Co., Newburyport, Mass.  
Fisk Manufacturing Co., Springfield, Mass.  
Puck Soap Co., Columbus Jct., Iowa.

### 1736 SOAP—Powder—

Babbitt, B. T., 84 Washington St., New York.  
Candle Co., S. F., 402 Front St., San Francisco, Cal.  
Cincinnati Soap Co., Clarkson St., Cincinnati, Ohio.  
Granite City Soap Co., Newburg, N. Y.  
Modoc Soap Co., Cincinnati, Ohio.  
Peet Bros. Manufacturing Co., Kansas City, Mo.

### 1737 SOCKETS—Steel—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Standard Tool Co., The, Cleveland, Ohio.

### 1738 SODA—Sal—

Church & Dwight Co., 65 Wall St., New York.  
Colgate & Co., 55 John St., New York.  
Elkinton, J. S. & T., 227 Chestnut St., Philadelphia, Pa.  
Grant Chemical Co., 110 W. Lake St., Chicago, Ill.  
Hutchinson & Son, Wm. H., 100 S. Desplaines St., Chicago, Ill.  
Irwin & Co., James, 343 Sixth Ave., Pittsburg, Pa.  
Powers & Weightman, 9th and Parrish Sts., Philadelphia, Pa.  
Taylor Chemical Co., J. M., 113 Water St., New York.

### 1739 SOFAS—Office—

American Desk Co., 18 E. Van Buren St., Chicago, Ill.  
Scharzwaelder & Co., Wm., 343 Broadway, New York.  
Scarrett, Comstock & Co., St. Louis, Mo.

### 1740 SOLDER—

Ajax Metal Co., 46 Richmond St., Philadelphia, Pa.  
Blatchford & Co., E. W., 70 N. Clinton St., Chicago, Ill.  
Bostwick-Braun Co., The, Toledo, Ohio.  
Brady Brass Co., 202 10th St., Jersey City, N. J.  
Bridgeport Deoxidized Bronze and Metal Co., Bridgeport, Conn.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Chadwick Lead Works, Boston, Mass.  
Cincinnati Corrugating Co., Piqua, Ohio.  
Colwell Lead Co., 63 Center St., New York.  
Crerar, Adams & Co., Chicago, Ill.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Gill & Son, V., Birmingham, Ala.  
Great Western Smelting and Refining Co., Chicago, Ill.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
Hussey & Co., C. G., Pittsburg, Pa.  
James & Co. (Inc.), Chattanooga, Tenn.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel and Railway Supply Co., Louisville, Ky.

**1740 SOLDER—Continued.**

More-Jones Brass and Metal Co., St. Louis, Mo.  
 National Lead Co., 100 Williams St., New York.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Shelby Smelting and Lead Co., San Francisco, Cal.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Wheeling Corrugating Co., 81 Fulton St., New York.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**A1740 SPADES—**

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Cramer, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones, Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Lindley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), N. Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**B1740 SPARK ARRESTERS—**

Barbee Wire and Iron Works, 44 Dearborn St., Chicago, Ill.  
 Byram & Co., Detroit, Mich.  
 Clinton Wire Cloth Co., Clinton, Mass.  
 Harrington & King Perforating Co., 239 N. Union St., Chicago.  
 Hendrick Manufacturing Co. (Ltd.), Carbondale, Pa.  
 Howard & Morse, 45 Fulton St., New York.  
 Howell & Co., R. R., Minneapolis, Minn.  
 McLeod, Ward & Co., 27 Thames St., New York.  
 Meyers Manufacturing Co., Fred J., Hamilton, Ohio.  
 Michigan Wire and Iron Works, Detroit, Mich.  
 Roebbling's Sons Co., John A., 117 Liberty St., New York.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
 South Bend Spark Arrester Co., South Bend, Ind.  
 Tyler Co., The W. S., Cleveland, Ohio.  
 Wright & Colton Wire Cloth Co., Worcester, Mass.

**1741 SPIKES—Boat—**

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.  
 Diamond State Steel Co., Wilmington, Del.  
 Dilworth, Porter & Co. (Ltd.), Pittsburg, Pa.  
 H. P. Nail Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 La Belle Iron Works, Wheeling, W. Va.  
 National Bolt, Nut and Rivet Works, Reading, Pa.  
 Tudor Iron Works, 415 Locust St., St. Louis, Mo.

1742 SPIKES—Track—

Allen & Co., J. H., Bath, Me.  
 Allentown Rolling Mills, Allentown, Pa.  
 American Iron and Steel Co., Pittsburg, Pa.  
 AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill. See ad. inside front cover.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Central Iron and Steel Co., Brazil, Ind.  
 Corbin, P. & F., New Britain, Conn.  
 Diamond State Steel Co., Wilmington, Del.  
 Dilworth, Porter & Co. (Ltd.), Pittsburg, Pa.  
 H. P. Nail Co., Cleveland, Ohio.  
 Joseph Iron Co., Isaac, Cincinnati, Ohio.  
 Kansas City Bolt and Nut Co., Kansas City, Mo.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 La Belle Iron Works, Wheeling, W. Va.  
 National Bolt, Nut and Rivet Works, Reading, Pa.  
 Pennsylvania Steel Co., Steelton, Pa.  
 RAILWAY EQUIPMENT AND FINANCE CO., THE, Majestic Bldg., Indianapolis, Ind. See ad. page B 1.  
 Republic Iron and Steel Co., Chicago, Ill.  
 Richmond Standard Spike and Iron Co., Richmond, Va.  
 Severance, Samuel, 51 Water St., Pittsburg, Pa.  
 Sternberg & Son, J. H., Reading, Pa.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.  
 Timme's Son, Peter, 281 N. 6th St., Brooklyn, N. Y.  
 Tredegar Co., Richmond, Va.  
 Tudor Iron Works, 415 Locust St., St. Louis, Mo.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1743 SPIKES—Track—Steel—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Illinois Steel Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1744 SPIKE PULLERS—

Atha Tool Co., Newark, N. J.  
 Harvey, H. H., Boston, Mass.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Verona Tool Works, Pittsburg, Pa.

1745 SPLICES—Hose—

Belknap Manufacturing Co., Bridgeport, Conn.

1746 SPLICERS—Fence Wire—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Dicke Tool Co., Downers Grove, Ill.

1747 SPRINGS—Buffer—

AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill. See ad. inside front cover.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.



1748 SPRINGS—Car—Elliptic—

Cambria Steel Co., Harrison Bldg., Philadelphia, Pa.  
DETROIT STEEL AND SPRING CO., Detroit, Mich. See ad.  
page A 8.  
Farist Steel Co., Bridgeport, Conn.  
French Spring Co., A. (Ltd.), Pittsburg, Pa.  
Harlan & Hollingsworth Co., Wilmington, Del.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Morgan Spring Co., Worcester, Mass.  
Pickering Spring Co. (Ltd.), Philadelphia, Pa.  
Rowland, William & Harvey, Frankford, Philadelphia, Pa.  
Scott Spring Co., Charles, 1028 N. Market St., Philadelphia, Pa.  
Vose Spring Co., 25 Murray St., New York.

1749 SPRINGS—Car—Graduated—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Vose Spring Co., 25 Murray St., New York.

1750 SPRINGS—Car—Rubber—

Akron Rubber Works, Akron, Ohio.  
Boston Belting Co., Boston, Mass.  
Boston Woven Hose and Rubber Co., Boston, Mass., Fred'k Swift  
& Co., Agents, Old Colony Bldg., Chicago, Ill.  
French, Carlos, Seymour, Conn.  
Goodyear Rubber Co., 787 Broadway, New York.  
Gutta Percha and Rubber Mfg. Co., 35 Warren St., New York.  
Hodgman Rubber Co., 593 Broadway, New York.  
Mechanical Rubber Co., 22 Murray St., New York.  
Mercer Rubber Co., Trenton, N. J.  
New York Belting and Packing Co., 25 Park Place, New York.  
Quaker City Rubber Co., Philadelphia, Pa.  
Trenton Rubber Co., Trenton, N. J.  
United Rubber Co., Trenton, N. J.

1751 SPRINGS—Car—Steel—

American Spiral Spring Co., Pittsburg, Pa.  
AMERICAN STEEL AND WIRE CO., The Rookery, Chicago,  
Ill. See ad. inside front cover.  
Anderson, Du Puy & Co., Pittsburg, Pa.  
Bemis Car Box Co., Springfield, Mass.  
Betts Spring Co., San Francisco, Cal.  
Brill Co., J. G., Philadelphia, Pa.  
Burris, Silver & Co., Bridgeport, Conn.  
Cambria Steel Co., Harrison Bldg., Philadelphia, Pa.  
Carbon Steel Co. of America, Pittsburg, Pa.  
DETROIT STEEL SPRING CO., Detroit. See ad. page A 8.  
Diamond State Car Spring Co., Wilmington, Del.  
Farris Steel Co., Bridgeport, Conn.  
French Spring Co., A. (Inc.), Pittsburg, Pa.  
Hansell Spring Co., Ambler, Pa.  
Harlan & Hollingsworth Co., Wilmington, Del.  
Harrow Spring Co., Kalamazoo, Mich.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Latrobe Steel Co., 1200 Girard Bldg., Philadelphia, Pa.  
McGuire Manufacturing Co., 122 N. Sangamon St., Chicago, Ill.

1751 SPRINGS—Car—Steel—Continued.

Miller & Van Winkle, 22 Bridge St., Brooklyn, N. Y.  
 Morgan Spring Co., Worcester, Mass.  
 Peckham Truck Co., 26 Cortlandt St., New York.  
 Pickering Spring Co. (Ltd.), Penn. Ave. and N. 8th St., Phila., Pa.  
 Rowland, William & Harvey, Frankford, Philadelphia, Pa.  
 Scott Spring Co., Charles, 1028 N. Market St., Philadelphia, Pa.  
 Singer, Nimick & Co. (Inc.), Philadelphia, Pa.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.  
 Van Dorn & Dutton Co., Cleveland, Ohio.  
 Vose Spring Co., 25 Murray St., New York.

1752 SPRINGS—Car Seat—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.  
 American Spiral Spring Co., Pittsburg, Pa.  
 American Pin Co., Waterbury, Conn.  
 Barnes Co., Wallace, Bristol, Conn.  
 Harrow Spring Co., Kalamazoo, Mich.  
 Hartford Woven Wire Mattress Co., Hartford, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Miller Wire Spring Co., Bridgeport, Conn.

1753 SPRINGS—Door—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.  
 American Spiral Spring Co., Pittsburg, Pa.  
 Edwards & Co., 144th St. and 4th Ave., New York.  
 Haven Co., James L., 56 Plum St., Cincinnati, Ohio.  
 Meyers Manufacturing Co., Fred. J., Hamilton, Ohio.  
 Morgan Spring Co., Worcester, Mass.  
 Peck, Stow & Wilcox Co., Southington, Conn.  
 Pullman Sash Balance Co., Rochester, N. Y.  
 Warner Hardware Co., Freeport, Ill.

1745 SPRINGS—Locomotive—Elliptic—

Cambria Steel Co., Harrison Bldg., Philadelphia, Pa.  
 DETROIT STEEL AND SPRING CO., Detroit. See ad. page A 8.  
 Farist Steel Co., Bridgeport, Conn.  
 French Spring Co. (Ltd.), A., Pittsburg, Pa.  
 Harlan & Hollingsworth Co., Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morgan Spring Co., Worcester, Mass.  
 Pickering Spring Co. (Ltd.), Philadelphia, Pa.  
 Rowland, William & Harvey, Frankford, Philadelphia, Pa.  
 Scott Spring Co., Charles, 1028 N. Market St., Philadelphia, Pa.  
 Vose Spring Co., 25 Murray St., New York.

1755 SPRINGS—Locomotive—Steel—

American Spiral Spring Co., Pittsburgh, Pa.  
 AMERICAN STEEL AND WIRE CO., The Rookery, Chicago,  
 Ill. See ad. inside front cover.  
 Anderson, Du Puy & Co., Pittsburg, Pa.  
 Bemis Car Box Co., Springfield, Mass.  
 Betts Spring Co., San Francisco, Cal.

## 1775. SPRINGS—Locomotive—Steel—Continued.

- Burris, Silver & Co., Bridgeport, Conn.  
 Cambria Steel Co., Harrison Bldg., Philadelphia, Pa.  
 Carbon Steel Co. of America, Pittsburg, Pa.  
 DETROIT STEEL AND SPRING CO., Detroit. See ad. page A 8.  
 Diamond State Car Spring Co., Wilmington, Del.  
 Farist Steel Co., Bridgeport, Conn.  
 French Spring Co., A. (Inc.), Pittsburg, Pa.  
 Hansell Spring Co., Ambler, Pa.  
 Harlan & Hollingsworth Co., Wilmington, Del.  
 Harrow Spring Co., Kalamazoo, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A. 4  
 McGuire Manufacturing Co., 122 N. Sangamon St., Chicago, Ill.  
 Miller & Van Winkle, 22 Bridge St., Brooklyn, N. Y.  
 • Morgan Spring Co., Worcester, Mass.  
 Peckham Truck Co., 26 Cortlandt St., New York.  
 Pickering Spring Co. (Ltd.), Penn. Ave. and N. 8th St., Philadelphia.  
 Rowland, Williams & Harvey, Frankford, Philadelphia, Pa.  
 Scott Spring Co., Charles, 1028 N. Market St., Philadelphia, Pa.  
 Singer, Nimick & Co. (Inc.), Philadelphia, Pa.  
 THOMPSON, C. A., 415 N. 4th St., St. Louis. See ad. page A 5.  
 Van Dorn & Dutton Co., Cleveland, Ohio.  
 Vose Spring Co., 25 Murray St., New York.

## 1756 SPRINGS—Machinery—

- AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.  
 Barnes Co., Wallace, Bristol, Conn.  
 DETROIT STEEL SPRING CO., Detroit. See ad. page A 8.  
 Hansell Spring Co., Ambler, Pa.  
 Harrow Spring Co., Kalamazoo, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A. 4  
 La Belle Steel Co., Pittsburg, Pa.  
 Morgan Spring Co., Worcester, Mass.  
 Sabin Manufacturing Co., Montpelier, Vt.

## A1756 SPRINGS—Steel—Flat—

- AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.

## B1756 SPRINGS—Valve—

- AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.

## 1757 SPRING DAMPENERS—

- McCORD & CO., 1475 Old Colony Bldg., Chicago, Ill.

## 1758 SPRINKLERS—Hose—

- Belknap Manufacturing Co., Bridgeport, Conn.  
 Haydenville Manufacturing Co., 73 Beekman St., New York.  
 Hersey Manufacturing Co., South Boston, Mass.  
 Peck Bros. & Co., New Haven, Conn.

## 1759 SQUARES—Steel "T"—

- Brown & Sharpe Manufacturing Co., Providence, R. I.  
 Starrett Co., L. S., Athol, Mass.

1760 SQUARES—Wood "T"—

Alteneider & Sons, Theo., 945 Ridge Ave., Philadelphia, Pa.

1701 STAKE POCKETS—

Pressed Steel Car Co., Pittsburg, Pa.

1762 STAMPS—Dating—

American Railway Supply Co., 24 Park Place, New York.

Barnard Stamp Co., St. Louis, Mo.

Hill Mfg. Co., B. B., 1020 New Market St., Philadelphia, Pa.

Hoggson & Pettis Manufacturing Co., New Haven, Conn.

Lang, Jacob S., Albany, N. Y.

Morgan, Crossman & Co., Springfield, Mass.

Pershing, H. Albert, South Bend, Ind.

Standard Time Stamp Co., 844 Washington St., New York.

Stewart & Co., 201 Broadway, New York.

Woodman Mfg. and Supply Co., The, 63 Oliver St., Boston, Mass.

1763 STAMPS—Numbering—

Hill Mfg. Co., B. B., 1020 New Market St., Philadelphia, Pa.

New York Stencil Works, 100 Nassau St., New York.

Smith Manufacturing Co., R. H., Springfield, Mass.

1764 STAMPS—Perforating—

Hill Mfg. Co., B. B., 1020 New Market St., Philadelphia, Pa.

New York Stencil Works, 100 Nassau St., New York.

Smith Manufacturing Co., R. H., Springfield, Mass.

Woodman Manufacturing and Supply Co., R., Boston, Mass.

1765 STAMPS—Rubber—

Barnard Stamp Co., St. Louis, Mo.

Bunting & Son, W. A., Pittsburg, Pa.

Carragan, George, 35 Beekman St., New York.

Denver Novelty Works and Mfg. Co., Denver, Col.

Detroit Rubber Stamp Co., Detroit, Mich.

Dorman, J. F. W., Baltimore, Md.

Ellert, C. H., Evansville, Ind.

Hoggson & Pettis Manufacturing Co., New Haven, Conn.

Lang, Jacob S., Albany, New York.

Massman & Vollmer Co., Davenport, Ia.

New York Stencil Works, 100 Nassau St., New York.

Schwaab Stamp and Seal Co., Milwaukee, Wis.

Zaizer, Cathcart & Co., Indianapolis, Ind.

1766 STAMPS—Time—

Smith Manufacturing Co., H. B., Westfield, Mass.

Standard Time Stamp Co., 844 Washington St., New York.

1768 STAPLES—Fence—

AMERICAN STEEL AND WIRE CO., The Rookery, Chicago.

Ill. See ad. inside front cover.

DeKalb Fence Co., DeKalb, Ill.

Detroit Fence Co., The, Detroit, Mich.

Dwiggins Wire Fence Co., Anderson, Ind.

Ellis & Helfenberger, Indianapolis, Ind.

**1768 STAPLES—Fence—Continued.**

Frost Wire Fence Co., Cleveland, Ohio.  
 Jones National Fence Co., Columbus, Ohio.  
 Lamb Fence Co., Adrian, Mich.  
 Mathews Woven Wire Fence Co., Jacksonville, Ill.  
 Page Woven Wire Fence Co., Adrian, Mich.  
 Roebling's Sons Co., John A., 117 Liberty St., New York.

**1769 STAY BOLTS—**

Falls Hollow Staybolt Co., Cuyahoga Falls, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A. 4  
 National Bolt, Nut and Rivet Works, Reading, Pa.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
 Standard Steel Tube Co., Detroit, Mich.

**A1769 STAY BOLTS—Flexible—**

THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.

**1770 STAY BOLTS—Hollow—**

Falls Hollow Staybolt Co., Cuyahoga Falls, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A. 4

**1771 STAY BOLTS—Iron—**

Falls Hollow Staybolt Co., Cuyahoga Falls, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A. 4

**1772 STAY BOLTS—Steel—**

Falls Hollow Staybolt Co., Cuyahoga Falls, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A. 4

**1773 STEAM GENERATORS—**

Almy Water Tube Boiler Co., Providence, R. I.  
 Atlas Engine Works, Indianapolis, Ind.  
 Howell & Co., R. R., Minneapolis, Minn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A. 4  
 McElroy Iron Works Co., Keokuk, Iowa.  
 Moseley & Stoddard Manufacturing Co., Rutland, Vt.  
 Smith & Co., H. B., Westfield, Mass.  
 Vulcan Iron Works, Wilkesbarre, Pa.

**1774 STEAM TRAPS—**

American Blower Co., Detroit, Mich.  
 Ashcroft Manufacturing Co., 85 Liberty St., New York.  
 Crane Co., 10 Jefferson St., Chicago, Ill.  
 Davis Co., The John, 51 Michigan St., Chicago, Ill.  
 Illinois Malleable Iron Co., 30 W. Monroe St., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A. 4  
 Mason Regulator Co., 6 Oliver St., Boston, Mass.  
 National Blower Works, 17th St. and St. Paul Ave., Milwaukee.  
 Stephens Manufacturing Co., Roe, Detroit, Mich.  
 Walworth Manufacturing Co., 16 Oliver St., Boston, Mass.

**1775 STEEL—Angle—**

Aetna-Standard Iron and Steel Co., Bridgeport, Ohio.  
 AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill. See ad. page inside front cover.

1775 STEEL—Angle—Continued.

Cambria Steel Co., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 DETROIT STEEL AND SPRING CO., Detroit. See ad. page A 8.  
 Ewald Iron Co., St. Louis, Mo.  
 Illinois Steel Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Republic Iron and Steel Co., Chicago, Ill.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
 Union Iron and Steel Co., Youngstown, Ohio.

1776 STEEL—Axle—

American Steel Foundry Co., St. Louis, Mo.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 DETROIT STEEL AND SPRING CO., Detroit. See ad. page A 8.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Midvale Steel Co., Philadelphia, Pa.  
 Ogden & Wallace, 577 Greenwich St., New York.  
 Park Bros & Co. (Ltd.), Pittsburg, Pa.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Prosser & Son, Thomas, 15 Gold St., New York.  
 Sanderson Bros. Steel Co., Syracuse, N. Y.  
 Union Iron and Steel Co., Youngstown, Ohio.

1777 STEEL—Band and Hoop—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. inside front cover.  
 American Iron and Steel Works, Pittsburg, Pa.  
 Illinois Steel Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Union Iron and Steel Co., Youngstown, Ohio.  
 Wilmot & Hobbs Manufacturing Co., Bridgeport, Conn.

1778 STEEL—Bar—

American Iron and Steel Co., Pittsburg, Pa.  
 AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. inside front cover.  
 American Steel Foundry Co., St. Louis, Mo.  
 American Steel Hoop Co., Battery Park Bldg., New York.  
 Bellaire Steel Co., Bellaire, Ohio.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Braeburn Steel Co., Braeburn, Pa.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Buhl Sons Co., Detroit, Mich.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Crerar, Adams & Co., Chicago, Ill.  
 DETROIT STEEL AND SPRING CO., Detroit, Mich. See ad. page A 8.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Globe Rolling Mill Iron and Steel Co., Cincinnati, Ohio.

## 1778—STEEL—Bar—Continued.

Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Illinois Steel Co., Chicago, Ill.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Joseph & Bros., Joseph, Cincinnati, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Republic Iron and Steel Co., Chicago, Ill.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Sternbergh & Son, J. H., Reading, Pa.  
 Union Iron and Steel Co., Youngstown, Ohio.  
 Union Rollig Mill Co., Cleveland, Ohio.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 1780 STEEL—Base Plates—

Illinois Steel Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 1781 STEEL—Beaded—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

## 1782 STEEL—Beams—

American Iron and Steel Co., Pittsburg, Pa.  
 AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill. See ad. inside front cover.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Cornell, J. B. & J. M., 26th St. and 11th Ave., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Murray Iron Works Co., Burlington, Iowa.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Paxton & Vierling Iron Works, Omaha, Neb.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
 Roberts Co., A. & P., Philadelphia, Pa.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
 Union Iron and Steel Co., Youngstown, Ohio.  
 Union Rolling Mill Co., Cleveland, Ohio.

## 1783 STEEL—Bessemer—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Bellaire Steel Co., Bellaire, Ohio.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Clark Sons Co., William, Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Union Iron and Steel Co., Youngstown, Ohio.  
 Wilmot & Hobbs Manufacturing Co., Bridgeport, Conn.

1784 STEEL—Billets—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Aetna Standard Iron and Steel Co., Bridgeport, Ohio.  
 Bellaire Steel Co., Bellaire, Ohio.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Jefferson Iron Works, Steubenville, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Midland Steel Co., Muncie, Ind.  
 Otis Steel Co. (Ltd.), Cleveland, Ohio.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Prosser & Son, Thomas, 15 Gold St., New York.

1785 STEEL—Boiler Plates—

AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill. See ad. inside front cover.  
 Carbon Steel Co., Pittsburg, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Ewald Iron Co., St. Louis, Mo.  
 Illinois Steel Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linden Steel Co., Pittsburg, Pa.  
 Otis Steel Co. (Ltd.), Cleveland, Ohio.  
 Pottstown Iron Co., Pottstown, Pa.  
 Spang Steel and Iron Co., Pittsburg, Pa.

1786 STEEL—Cast—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. inside front cover.  
 Beaver Falls Steel Works, Beaver Falls, Pa.  
 Canton Steel Co., Canton, Ohio.  
 Howe, Brown & Co. (Ltd.), Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linden Steel Co., Pittsburg, Pa.  
 Ogden & Wallace, 577 Greenwich St., New York.  
 Park Bro. & Co. (Ltd.), Pittsburg, Pa.  
 Pittsburg Steel Castings Co., Pittsburg, Pa.  
 Singer, Nimick & Co. (Inc.), Pittsburg, Pa.

1787 STEEL—Channel—

American Iron and Steel Co., Pittsburg, Pa.  
 AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill. See ad. inside front cover.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Roberts Co., A. & P., 4th St., Philadelphia, Pa.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

1788 STEEL—Cold Rolled—

American Sheet Steel Co., Battery Park Bldg., New York.  
 Atha & Illinworth Co., Benjamin, Harrison, N. J.  
 Beaver Tin Plate Co., Lisbon, Ohio.  
 Cambria Steel Co., Philadelphia, Pa.



1788 STEEL—Cold Rolled—Continued.

Elliott-Blair Steel Co., New Castle, Pa.  
Hart & Cooley Manufacturing Co., 35 S. Canal St., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Wilmot & Hobbs Manufacturing Co. (Ltd.), Bridgeport, Conn.  
Wolff & Co., R. H. (Ltd.), 260 E. 118th St., New York.

1789 STEEL—Corrugated—

American Sheet Steel Co., Battery Park Bldg., New York.  
Berlin Iron Bridge Co., East Berlin, Conn.  
Cincinnati Corrugating Co., Piqua, Ohio.  
Garry Iron and Steel Roofing Co., 152 Merwyn St., Cleveland.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Republican Iron Works, Pittsburg, Pa.  
SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
Souther Iron Co., E. E., 932 W. 2d St., St. Louis, Mo.  
Wheeling Corrugating Co., 81 Fulton St., New York.

1790 STEEL—Drill—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
inside front cover.  
Anderson, Du Puy & Co., Pittsburg, Pa.  
Atha & Illingworth Co., Benjamin, Harrison, N. J.  
Cambria Steel Co., Philadelphia, Pa.  
Canton Steel Co., Canton, Ohio.  
Doble Co., Abner, San Francisco, Cal.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Park Bro. & Co. (Ltd.), Pittsburg, Pa.  
Rand Drill Co., 128 Broadway, New York.  
Scully Steel and Iron Co., Chicago, Ill.

1791 STEEL—Fire Box—

AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill. See ad. inside front cover.  
Cambria Steel Co., Philadelphia, Pa.  
Carbon Steel Co., Pittsburg, Pa.  
Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
Ewald Iron Co., St. Louis, Mo.  
Illinois Steel Co., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Otis Steel Co. (Ltd.), Cleveland, Ohio.  
Pennsylvania Steel Co., Steelton, Pa.  
THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.

1792 STEEL—Galvanized—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
inside front cover.  
American Sheet Steel Co., Battery Park Bldg., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

1793 STEEL—Girders—

American Iron and Steel Co., Pittsburg, Pa.  
Berlin Iron Bridge Co., East Berlin, Conn.  
Gillette-Herzog Manufacturing Co., Minneapolis, Minn.

1793 STEEL—Girders—Continued.

King Bridge Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Murray Iron Works Co., Burlington, Iowa.  
 Penn Bridge Co., Beaver Falls, Pa.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pittsburg Bridge Co., 38th St., Pittsburg, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Shiffler Bridge Co., Pittsburg, Pa.

1794 STEEL—Hammered—

Anderson, Du Puy & Co., Pittsburg, Pa.  
 Brown & Co. (Inc.), Pittsburg, Pa.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Cleveland City Forge and Iron Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sanderson Bros. Steel Co., Syracuse, N. Y.  
 Singer, Nimick & Co., Pittsburg, Pa.

1795 STEEL—Machinery—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.  
 Anderson, Du Puy & Co., Pittsburg, Pa.  
 Brown & Co. (Inc.), Pittsburg, Pa.  
 Burgess Steel and Iron Works, Portsmouth, Pa.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carbon Steel Co. of America, Pittsburg, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Cleveland City Forge and Iron Co., Cleveland, Ohio.  
 Cumberland Steel and Tin Plate Co., Cumberland, Md.  
 DETROIT STEEL AND SPRING CO., Detroit, Mich. See ad.  
 page A 8.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 La Belle Steel Co., Pittsburg, Pa.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Scully Steel and Iron Co., Chicago, Ill.  
 Singer, Nimick & Co. (Inc.), Pittsburg, Pa.

1796 STEEL—Open Hearth—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.  
 American Sheet Steel Co., Battery Park Bldg., New York.  
 Braeburn Steel Co., Braeburn, Pa.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 DETROIT STEEL AND SPRING CO., Detroit, Mich. See ad.  
 page A 8.  
 Ewald Iron Co., St. Louis, Mo.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 La Belle Steel Co., Pittsburg, Pa.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Union Iron and Steel Co., Youngstown, Ohio.

1797 STEEL—Plates—

AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill. See ad. inside front cover.  
 Bethlehem Steel Co., S. Bethlehem, Pa.  
 Britton Rolling Mill Co., Cleveland, Ohio.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Ewald Iron Co., St. Louis, Mo.  
 Glasgow Iron Co., Pottstown, Pa.  
 Globe Rolling Mill Iron and Steel Co., 165 W. Pearl St., Cincinnati, Ohio.  
 Howe, Brown & Co. (Ltd.), Pittsburg, Pa.  
 Illinois Steel Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Mahoning Valley Iron Co., Youngstown, Ohio.  
 Midland Steel Co., Muncie, Ind.  
 Mitchell, Tranter & Co., Cincinnati, Ohio.  
 Morris, Wheeler & Co., 1608 Market St., Philadelphia, Pa.  
 Park Bro. & Co. (Ltd.), Pittsburg, Pa.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Republic Iron and Steel Co., Chicago, Ill.  
 Riverside Iron Works (Inc.), Wheeling, W. Va.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
 Seidel & Hastings Co., Wilmington, Del.  
 Singer, Nimick & Co. (Inc.), Pittsburg, Pa.  
 Springfield Iron Co., Springfield, Ill.

1798 STEEL—Rolled—

American Sheet Steel Co., Battery Park Bldg., New York.  
 Bethlehem Steel Co., S. Bethlehem, Pa.  
 Brown & Co. (Inc.), Pittsburg, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Ewald Iron Co., St. Louis, Mo.  
 Illinois Steel Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1799 STEEL—Sheet—

American Iron and Steel Co., Pittsburg, Pa.  
 AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. inside front cover.  
 American Sheet Steel Co., Battery Park Bldg., New York.  
 Bergen Manufacturing Co., Canton, Ohio.  
 Britton Rolling Mill Co., Cleveland, Ohio.  
 Buhl Sons Co., Detroit, Mich.  
 Carbon Steel Co. of America, Pittsburg, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Cincinnati Corrugating Co., Piqua, Ohio.  
 Ewald Iron Co., St. Louis, Mo.  
 Harry Steel Works, O. K., St. Louis, Mo.  
 Jennings Steel Co. (Ltd.), Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 McVoy & Co., John, 25 Michigan St., Chicago, Ill.  
 Midland Steel Co., Muncie, Ind.  
 Republican Iron Works, Pittsburg, Pa.

**1799 STEEL—Sheet—Continued.**

SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
 Union Iron and Steel Co., Youngstown, Ohio.  
 Wheeling Corrugating Co., Wheeling, W. Va.

**1802 STEEL—Sheet—Galvanized—**

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

**1803 STEEL—Sheet—Polished—**

American Sheet Steel Co., Battery Park Bldg., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**1804 STEEL—Spring—**

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.  
 Burgess Steel and Iron Works, Portsmouth, Ohio.  
 Canton Steel Co., Canton, Ohio.  
 Carbon Steel Co. of America, Pittsburg, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 DETROIT STEEL AND SPRING CO., THE, Detroit, Mich. See  
 ad. page A 8.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Prosser & Son, Thomas, 15 Gold St., New York.  
 THOMPSON, C. A., 415 N. 4th St., St. Louis. See ad. page A 5.  
 Troy Steel Co., Troy, N. Y.

**1806 STEEL—Structural—**

Aetna Standard Iron and Steel Co., Bridgeport, Ohio.  
 AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.  
 Bellefontaine Bridge and Iron Co., Bellefontaine, Ohio.  
 Boston Bridge Works, 70 Kilby St., Boston, Mass.  
 Bracket Bridge Co., 500 Walnut St., Cincinnati, Ohio.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Cleveland Rolling Mill Co., Cleveland, Ohio.  
 Detroit Bridge and Iron Works, Detroit, Mich.  
 Edge Moor Iron Co., Wilmington, Del.  
 Garry Iron and Steel Roofing Co., Cleveland, Ohio.  
 Globe Rolling Mill Iron and Steel Co., 165 W. Pearl St., Cincinnati, Ohio.  
 Illinois Steel Co., Chicago, Ill.  
 Indianapolis Switch and Frog Co., Springfield, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Penn Bridge Co., Beaver Falls, Pa.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.

1806 STEEL—Structural—Continued.

Riter-Conley Manufacturing Co., Pittsburg, Pa.  
 Roberts Co., A. & P., Philadelphia, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Shiffer Bridge Co., Pittsburg, Pa.  
 Structural Iron and Steel Co., Baltimore, Md.  
 Trenton Iron Co., Trenton, N. J.  
 Union Iron and Steel Co., Youngstown, Ohio.

1808 STEEL—Tire—

Aetna Standard Iron and Steel Co., Bridgeport, Ohio.  
 AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Clark Sons Co., Wm., Pittsburg, Pa.  
 DETROIT STEEL AND SPRING CO., Detroit, Mich. See ad.  
 page A 8.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Old Dominion Iron and Nail Manufacturing Co., Richmond, Va.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Prosser & Son, Thomas, 15 Gold St., New York.  
 Sternbergh & Son, J. H., Reading, Pa.  
 Union Iron and Steel Co., Youngstown, Ohio.

1809 STEEL—Tool—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.  
 Anderson, Du Puy & Co., Pittsburg, Pa.  
 Beaver Falls Steel Works, Beaver Falls, Pa.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Braeburn Steel Co., Braeburn, Pa.  
 Brown & Co. (Inc.), Pittsburg, Pa.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carbon Steel Co. of America, Pittsburg, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Jones & Co., B. M., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 La Belle Steel Co., Pittsburg, Pa.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sanderson Bros. Steel Co., Syracuse, N. Y.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

1799 STEEL—Sheet—Continued.

SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
Union Iron and Steel Co., Youngstown, Ohio.  
Wheeling Corrugating Co., Wheeling, W. Va.

1802 STEEL—Sheet—Galvanized—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
inside front cover.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

1803 STEEL—Sheet—Polished—

American Sheet Steel Co., Battery Park Bldg., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1804 STEEL—Spring—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
inside front cover.  
Burgess Steel and Iron Works, Portsmouth, Ohio.  
Canton Steel Co., Canton, Ohio.  
Carbon Steel Co. of America, Pittsburg, Pa.  
Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
DETROIT STEEL AND SPRING CO., THE, Detroit, Mich. See  
ad. page A 8.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Midvale Steel Co., Nicetown, Philadelphia, Pa.  
Pennsylvania Steel Co., Steelton, Pa.  
Prosser & Son, Thomas, 15 Gold St., New York.  
THOMPSON, C. A., 415 N. 4th St., St. Louis. See ad. page A 5.  
Troy Steel Co., Troy, N. Y.

1806 STEEL—Structural—

Aetna Standard Iron and Steel Co., Bridgeport, Ohio.  
AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
inside front cover.  
Bellefontaine Bridge and Iron Co., Bellefontaine, Ohio.  
Boston Bridge Works, 70 Kilby St., Boston, Mass.  
Bracket Bridge Co., 500 Walnut St., Cincinnati, Ohio.  
Cambria Steel Co., Philadelphia, Pa.  
Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
Cleveland Rolling Mill Co., Cleveland, Ohio.  
Detroit Bridge and Iron Works, Detroit, Mich.  
Edge Moor Iron Co., Wilmington, Del.  
Garry Iron and Steel Roofing Co., Cleveland, Ohio.  
Globe Rolling Mill Iron and Steel Co., 165 W. Pearl St., Cincinnati, Ohio.  
Illinois Steel Co., Chicago, Ill.  
Indianapolis Switch and Frog Co., Springfield, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Passaic Rolling Mill Co., Paterson, N. J.  
Penn Bridge Co., Beaver Falls, Pa.  
Pennsylvania Steel Co., Steelton, Pa.  
Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.

1806 STEEL—Structural—Continued.

Ritter-Conley Manufacturing Co., Pittsburg, Pa.  
 Roberts Co., A. & P., Philadelphia, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Shiffler Bridge Co., Pittsburg, Pa.  
 Structural Iron and Steel Co., Baltimore, Md.  
 Trenton Iron Co., Trenton, N. J.  
 Union Iron and Steel Co., Youngstown, Ohio.

1808 STEEL—Tire—

Aetna Standard Iron and Steel Co., Bridgeport, Ohio.  
 AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Clark Sons Co., Wm., Pittsburg, Pa.  
 DETROIT STEEL AND SPRING CO., Detroit, Mich. See ad.  
 page A 8.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Old Dominion Iron and Nail Manufacturing Co., Richmond, Va.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Prosser & Son, Thomas, 15 Gold St., New York.  
 Sternbergh & Son, J. H., Reading, Pa.  
 Union Iron and Steel Co., Youngstown, Ohio.

1809 STEEL—Tool—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.  
 Anderson, Du Puy & Co., Pittsburg, Pa.  
 Beaver Falls Steel Works, Beaver Falls, Pa.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Braeburn Steel Co., Braeburn, Pa.  
 Brown & Co. (Inc.), Pittsburg, Pa.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carbon Steel Co. of America, Pittsburg, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Jones & Co., B. M., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 La Belle Steel Co., Pittsburg, Pa.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sanderson Bros. Steel Co., Syracuse, N. Y.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

**1809 STEEL—Tool—Continued.**

Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Singer Nimick & Co. (Inc.), Pittsburg, Pa.  
 Wagner, W. F., General Agent, 91 John St., New York.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

**1810 STEEL—V-Crimped—**

American Sheet Steel Co., Battery Park Bldg., New York.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

**1811 STEEL WORK—Architectural—**

Flint & Walling Manufacturing Co., Kendallville, Ind.  
 Gillette-Herzog Manufacturing Co., Minneapolis, Minn.  
 Lombard Iron Works and Supply Co., Augusta, Ga.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Rarig Engineering Co., Columbus, Ohio.

**1812 STOCKS AND DIES—Pipe—**

Ashcroft Manufacturing Co., 85 Liberty St., New York.  
 Carpenter Tap and Die Co., J. M., Pawtucket, R. I.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Hart Manufacturing Co., Cleveland, Ohio.  
 Holroyd & Co., Waterford, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 Reed Manufacturing Co., Erie, Pa.  
 Saunder's Sons, D., Yonkers, N. Y.

**1813 STOKERS—Mechanical—**

American Stoker Co., 141 Broadway, New York.  
 Brightman Furnace Co., Cleveland, Ohio.  
 Cahall Sales Department, Pittsburg, Pa.  
 Fraser & Chalmers, 12st St. and Washtenaw Ave., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Westinghouse Machine Co., The, Pittsburg, Pa.

**1814 STONE—Building—**

Buffalo Cement Co. (Ltd.), 110 Mankin St., Buffalo, N. Y.  
 Clarke Blue Stone Co., F. G., Oxford, N. Y.  
 Cleveland Stone Co., Cleveland, Ohio.  
 Malone Stone Co., Cleveland, Ohio.  
 New England Brown Stone Co., Cromwell, Conn.  
 Pennsylvania Salt Mfg. Co., 115 Chestnut St., Philadelphia, Pa.  
 Warsaw Blue Stone Co., Warsaw, N. Y.

**1815 STONE—Crushed—**

Buffalo Cement Co. (Ltd.), 110 Mankin St., Buffalo, N. Y.  
 Consolidated Coal and Lime Co., Indianapolis, Ind.  
 Tompkins Co., Stone Co., Tompkins Cove, N. Y.  
 White Marble Lime Co., Manistique, Mich.



1816 STONE—Granite—

Bodwell Granite Co., Rockland, Me.  
 Brandywine Granite Co., Wilmington, Del.  
 Hollowell Granite Co., Hollowell, Me.  
 Maine Red Granite Co., Red Beach, Me.  
 New England Granite Works, Hartford, Conn.  
 Smith Granite Co., Westerly, R. I.

1817 STONE—Lime—

Le Grand Quarry Co., Marshalltown, Iowa.  
 Malone Stone Co., Cleveland, Ohio.

1818 STONE—Pumice—

Behr & Co., Herman, 75 Beekman St., New York.  
 Kirby, Wm., Pittsburg, Pa.  
 McIlvaine Bros., N. 15th and Hamilton Sts., Philadelphia, Pa.  
 Obermayer Co., S., Cincinnati, Ohio.  
 Williams & Co., C. K., Easton, Pa.

1819 STOOLS—Office—

American Desk Co., 18 E. Van Buren St., Chicago, Ill.  
 Crocker Chair Co., Sheboygan, Wis.  
 Fiske, J. W., 39 Park Place, New York.  
 Scarritt, Comstock & Co., St. Louis, Mo.

1820 STOVES—

Abendroth Bros., 109 Beekman St., New York.  
 Baldwin & Graham, Pittsburg, Pa.  
 Baxter Stove Co., Mansfield, Ohio.  
 Bement & Sons, E., Lansing, Mich.  
 Bibb Stove Co., B. C., Baltimore, Md.  
 Bissell & Co., Pittsburg, Pa.  
 Bridge & Beach Manufacturing Co., 501 S. Main St., St. Louis.  
 Buck's Stove and Range Co., 3500 N. 2d St., St. Louis, Mo.  
 Buda Foundry and Manufacturing Co., Harvey, Ill.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Cleveland Co-Operative Stove Co., Cleveland, Ohio.  
 Comstock-Castle Stove Co., Quincy, Ill.  
 Cornell, J. B., & J. M., 26th St. and 11th Ave., New York.  
 Cribben, Sexton & Co., 50 Erie St., Chicago, Ill.  
 De Haven & Co. (Ltd.), Allegheny City, Pa.  
 Detroit Stove Works, Detroit, Mich.  
 Fales Stove Works, Troy, N. Y.  
 Great Western Stove Co., Leavenworth, Kas.  
 Hertenstein & Co., M., Columbus, Ohio.  
 Holbrook, Merrill & Stetson, San Francisco, Cal.  
 Indiana Stove Works, Evansville, Ind.  
 Kahn & Bros., F. & L., Hamilton, Ohio.  
 Littlefield Stove Co., Albany, N. Y.  
 Magee Furnace Co., 30 Union St., Boston, Mass.  
 Montague & Co., W. W., San Francisco, Cal.  
 Peninsular Stove Co., 79 Wabash Ave., Chicago, Ill.  
 Pittsburg Stove and Range Co., 610 Wood St., Pittsburg, Pa.  
 Resor & Co., William, State Ave., Cincinnati, Ohio.  
 Riter-Conley Manufacturing Co., Pittsburg, Pa.

## 1820-1826

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### 1820 STOVES—Continued.

Shinnick, Woodside & Gibbons Manufacturing Co., Zanesville.  
Southern Stove Works, Evansville, Ind.  
Spear Stove and Heating Co., James, 1014 Market St., Philadelphia, Pa.  
Stratton & Terstegge, Louisville, Ky.  
Taplin, Rice & Co., Akron, Ohio.  
Union Stove Works, 70 Beekman St., New York.

### A1820 STOVES—Depot and Caboose—

Pittsburg Stove and Range Co., Pittsburg, Pa.

### 1821 STRAIGHT-EDGES—

Athol Machine Co., Athol, Mass.  
Atkins & Co., E. C., Indianapolis, Ind.  
Baldwin, Tuthill & Bolton, Grand Rapids, Mich.  
Barry Saw and Supply Co., W. B., Indianapolis, Ind.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Standard Tool Co., Athol, Mass.  
Thompson & Campbell, 1030 Germantown Ave., Philadelphia, Pa.

### 1822 STRAIGHTENERS—Angle Bar—

Buda Foundry and Manufacturing Co., Harvey, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

### 1823 STRAINERS—Hose—

Hayden & Derby Mfg. Co., The, 85 Liberty St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

### 1824 STRAPS—Hose—

Gutta Percha and Rubber Mfg. Co., 35 Warren St., New York.  
Haydenville Manufacturing Co., 73 Beekman St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

### 1825 STRETCHERS—Fence Wire—

Cincinnati Barbed Wire Fence Co., Cincinnati, Ohio.  
Eureka Tempered Copper Co., North East, Pa.  
Fillebrown, L. W., Piqua, Ohio.  
Heller & Co., W. C., Montclair, N. J.  
Keystone Woven Wire Fence Co., Peoria, Ill.  
Knapp & Cowles Manufacturing Co., Bridgeport, Conn.  
Novelty Iron Works, Sterling, Ill.  
Pullman Sash Balance Co., Rochester, N. Y.  
Sedgwick Wire Fence Co., Richmond, Va.  
Winona Fence Co., Winona, Minn.

### 1826 STUDS—Belt—

Bostwick-Braun Co., The, Toledo, Ohio.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Buffalo Specialty Manufacturing Co., Buffalo, N. Y.  
Cahill, Swift & Co., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.

1826 STUDS—Belt—Continued.

Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1827 STUDS—Engine—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Worcester Machine Screw Co., Worcester, Mass.

1828 STYLUSES—

American Lead Pencil Co., 491 Broadway, New York.  
 Brooks & Co., Cleveland, Ohio.  
 Burford, Wm. B., Indianapolis, Ind.  
 Cutter-Tower Co., Boston, Mass.  
 Eagle Pencil Co., 377 Broadway, New York.  
 Laughlin Manufacturing Co., Detroit, Mich.

1829 SUPPLIES—Railway—

Adams & Westlake Co., Ontario and N. Franklin Sts., Chicago.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Diamond State Steel Co., Wilmington, Del.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hooks Smelting Co., Broad and Hamilton Sts., Philadelphia, Pa.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Q. & C. Co., 700 Western Union Bldg., Chicago, Ill.  
 Robinson & Cary Co., St. Paul, Minn.  
 Romer & Co., Newark, N. J.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Simmons Hardware Co., St. Louis, Mo.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1830 SWITCHES—

Ajax Forge Co., 138 Jackson Boul., Chicago, Ill.  
 Allentown Rolling Mills, Allentown, Pa.  
 Barbour, Stockwell Co., Cambridgeport, Mass.  
 Bowler & Co., Cleveland, Ohio.  
 Buda Foundry and Manufacturing Co., Harvey, Ill.

1830 SWITCHES—Continued.

Carlin's Sons, Thomas, Allegheny, Pa.  
 Cleveland Frog and Crossing Co., Cleveland, Ohio.  
 Coughlin-Sanford Switch Co., St. Paul Bldg., New York.  
 ELLIOT FROG AND SWITCH CO., E. St. Louis, Ill. See ad.  
 page A 5.  
 Fulton Foundry Co., Cleveland, Ohio.  
 Hawkins Iron Works, R. F., Springfield, Mass.  
 Huebel & Manger, 286 Graham St., Brooklyn, N. Y.  
 INDIANAPOLIS SWITCH AND FROG CO., Springfield, Ohio.  
 Johnston Railroad Frog and Switch Co., Chester, Pa.  
 Kenney & Co., Scottsdale, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Loraine Steel Co., Loraine, Ohio.  
 Louisville Bridge and Iron Co., Louisville, Ky.  
 McGuire Manufacturing Co., 122 N. Sangamon St., Chicago, Ill.  
 MORDEN FROG AND CROSSING WORKS, The Rookery, Chi-  
 cago, Ill. See ad. page A 5.  
 New York Switch and Crossing Co., Hoboken, N. J.  
 Peacock's Iron Works, Selma, Ala.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pettibone, Mulliken & Co., Marquette Bldg., Chicago, Ill.  
 Ramapo Iron Works, Hillburn, N. Y.  
 Sheffield Car Co., Three Rivers, Mich.  
 Standard Railroad Signal Co., Troy, N. Y.  
 Steele & Sons, J. C., Statesville, N. C.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.  
 Union Switch and Signal Co., Swissvale, Pa.  
 Wason Manufacturing Co., Springfield, Mass.  
 Weir Frog Co., Cincinnati, Ohio.  
 Wharton & Co., Wm., Jr., 308 Walnut St., Philadelphia, Pa.

1831 SWITCHES—Automatic—

Black Automatic Railroad Block Signal Co., foot of Whitehall St.,  
 New York.  
 ELLIOT FROG AND SWITCH CO., East St. Louis, Ill. See  
 ad. page A 5.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New York Switch and Crossing Co., Hoboken, N. J.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Ramapo Iron Works, Hillburn, N. Y.  
 Sheffield Car Co., Three Rivers, Mich.  
 Wharton & Co. (Inc.), Wm., Jr., 308 Walnut St., Philadelphia, Pa.

1832 SWITCHES—Cut Out—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Ramapo Iron Works, Hillburn, N. Y.  
 Sheffield Car Co., Three Rivers, Mich.  
 Vulcan Iron Works, Wilkesbarre, Pa.

A1832 SWITCHES—Derailing—

Locomotive Appliance Co., Fisher Bldg., Chicago, Ill.

1833 SWITCHES—Interlocking—

Allentown Rolling Mills, Allentown, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Ramapo Iron Works, Hillburn, N. Y.  
Taylor Signal Co., Buffalo, N. Y.  
Union Switch and Signal Co., Swissvale, Pa.  
Weir Frog Co., Cincinnati, Ohio.

1834 SWITCHES—Mine Track—

Dickson Manufacturing Co., Scranton, Pa.  
ELLIOT FROG AND SWITCH CO., East St. Louis, Ill. See ad. page A 5.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Pennsylvania Steel Co., Steelton, Pa.  
Ramapo Iron Works, Hillburn, N. Y.  
Vulcan Iron Works, Wilkesbarre, Pa.

1836 SWITCHES—Overhead Track—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Reading Crane and Holst Works, Reading, Pa.

1837 SWITCHES—Portable Contractors'—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Logan & Son, Farrel, 52 Commercial St., Brooklyn, N. Y.  
Pennsylvania Steel Co., Steelton, Pa.  
Peteler Portable Railway Manufacturing Co., Minneapolis, Minn.  
Ramapo Iron Works, Hillburn, N. Y.

1838 SWITCHES—Signalling—

Allentown Rolling Mills, Allentown, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Pennsylvania Steel Co., Steelton, Pa.  
Union Switch and Signal Co., Swissvale, Pa.

1839 SWITCH STANDS—

Ajax Forge Co., 138 Jackson Boul., Chicago, Ill.  
Allentown Rolling Mills, Allentown, Pa.  
Barbour, Stockwell Co., Cambridgeport, Mass.  
Bowler & Co., Cleveland, Ohio.  
Buda Foundry and Manufacturing Co., Harvey, Ill.  
Campbell Frog Works, Bucyrus, Ohio.  
Carlin's Sons, Thomas, Allegheny, Pa.  
Cleveland Frog and Crossing Co., Cleveland, Ohio.  
Coughlin-Sanford Switch Co., St. Paul Bldg., New York.  
ELLIOT FROG AND SWITCH CO., East St. Louis, Ill. See ad. page A 5.  
Fulton Foundry Co., Cleveland, Ohio.  
Hawkins Iron Works, R. F., Springfield, Mass.  
Huebel & Manger, 286 Graham St., Brooklyn, N. Y.  
Indianapolis Switch and Frog Co., The, Springfield, Ohio.  
Johnston Railroad Frog and Switch Co., Chester, Pa.  
Kenney & Co., Scottdale, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Loraine Steel Co., Loraine, Ohio.  
Louisville Bridge and Iron Co., Louisville, Ky.  
McGuire Manufacturing Co., 122 N. Sangamon St., Chicago, Ill.

1839 SWITCH STANDS—Continued.

MORDEN FROG AND CROSSING WORKS, The Bookery, Chicago, Ill. See ad. page A 5.  
 New York Switch and Crossing Co., Hoboken, N. J.  
 Peacock's Iron Works, Selma, Ala.  
 Pennsylvania Steel Co., Steelton, Pa.  
 Pettibone, Mulliken & Co., Marquette Bldg., Chicago, Ill.  
 Ramapo Iron Works, Hillburn, N. Y.  
 Sheffield Car Co., Three Rivers, Mich.  
 Standard Railroad Signal Co., Troy, N. Y.  
 Steele & Sons, J. C., Statesville, N. C.  
 Union Switch and Signal Co., Swissvale, Pa.  
 Wason Manufacturing Co., Springfield, Mass.  
 Weir Frog Co., Cincinnati, Ohio.  
 Wharton & Co. (Inc.), Wm., Jr., 308 Walnut St., Philadelphia, Pa.

1840 SWIVELS—Chain—

Bridgeport Chain Co., Bridgeport, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Nes Chain Manufacturing Co., York, Pa.  
 Pratt & Letchworth Co., Buffalo, N. Y.

1841 SWIVELS—Iron—

Keystone Drop Forge Co., 20th and Clearfield Sts., Philadelphia.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lansing Wheelbarrow Co., Lansing, Mich.  
 Maxwell, H. B., Rome, N. Y.  
 Nicol & Co., 55 W. Washington St., Chicago, Ill.

1842 TABLES—Drawing—

Keuffel & Esser Co., 127 Fulton St., New York.  
 Laughlin-Hough Co., 30 Broad St., New York.

1843 TABLES—Library—

Alms Manufacturing Co., F. W., 225 Clinton Ave., Cincinnati.  
 Barnutz & Diehl, 143 7th Ave., New York.  
 Grand Rapids Chair Co., Grand Rapids, Mich.  
 Lauter, H., Indianapolis, Ind.  
 Novelty Wood Works, Union City, Pa.  
 Scarritt, Comstock & Co., 414 N. 4th St., St. Louis, Mo.  
 Wrampelmeier Manufacturing Co., Louisville, Ky.

1844 TABLES—Office—

American Desk Co., 18 E. Van Buren St., Chicago, Ill.  
 Chattanooga Furniture Co., Chattanooga, Tenn.  
 Dornette & Bro., J., 1250 Harrison Ave., Cincinnati, Ohio.  
 Lauter, H., Indianapolis, Ind.  
 Rand & Leopold Desk Co., Burlington, Iowa.  
 Scarritt, Comstock Co., St. Louis, Mo.  
 U. S. Desk and Office Fitting Co., 246 Wabash Ave., Chicago, Ill.

1845 TABLES—Surveyors'—

Gurley, W. & L. E., Troy, N. Y.  
 Standard Thermometer and Electric Co., Peabody, Mass.

**1846 TABLES—Transfer—**

Dickson Manufacturing Co., Scranton, Pa.  
 Fulton Foundry Co., Cleveland, Ohio.  
 Greenleaf Turn Table Co., Indianapolis, Ind.  
 Industrial Works, Bay City, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New York Switch and Crossing Co., Hoboken, N. J.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Vulcanus Forging Co., The, 965 Hamilton St., Cleveland, Ohio.

**1847 TABLES—Turn—**

Allentown Rolling Mills, Allentown, Pa.  
 American Clay Working Machinery Co., Bucyrus, Ohio.  
 Bowler & Co., Cleveland, Ohio.  
 Buda Foundry and Manufacturing Co., Harvey, Ill.  
 Byram & Co., Detroit, Mich.  
 Carlin's Sons, Thomas, Allegheny, Pa.  
 Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
 Cartter & Co., M. S., St. Louis, Mo.  
 Chicago Forge and Bolt Co., 40th St., cor. Stewart Ave., Chicago.  
 Detroit Bridge and Iron Works, Detroit, Mich.  
 Edge Moor Iron Co., Wilmington, Del.  
 Excelsior Iron Works Co., Cleveland, Ohio.  
 GREENLEAF TURN TABLE CO., Indianapolis, Ind.  
 Industrial Works, Bay City, Mich.  
 King Bridge Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Louisville Bridge and Iron Co., Louisville, Ky.  
 Martin Brick Machine Manufacturing Co., Henry, Lancaster, Pa.  
 Massillon Bridge Co., Massillon, Ohio.  
 Missouri Valley Bridge and Iron Works, Leavenworth, Kas.  
 New York Switch and Crossing Co., Hoboken, N. J.  
 Passaic Rolling Mill Co., Paterson, N. J.  
 Peacock's Iron Works, Selma, Ala.  
 Penn Bridge Co., Beaver Falls, Pa.  
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
 Pittsburg Bridge Co., Pittsburg, Pa.  
 Roberts Co., A. & P., 261 S. 4th St., Philadelphia, Pa.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
 Shiffler Bridge Co., Pittsburg, Pa.  
 Vulcanus Forging Co., The, 965 Hamilton St., Cleveland, Ohio.  
 Wharton & Co. (Inc.), Wm., Jr., 308 Walnut St., Philadelphia, Pa.  
 Whiting Foundry Equipment Co., Harvey, Ill.  
 Wrought Iron Bridge Co., Canton, Ohio.

**1849 TABLES—Turn—Overhead Track—**

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Reading Crane and Hoist Works, Reading, Pa.

**1850 TABLES—Turn—Pivot Bridge—**

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

## 1851-1858

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### 1851 TABLES—Turn—Portable—

Corey & Co., 219 Dearborn St., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Peteler Portable Railway Manufacturing Co., Minneapolis, Minn.  
Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.  
Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

### 1852 TABLES—Turn—Shop—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Lobdell Car Wheel Co., Wilmington, Del.  
Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.

### 1854 TACKS—

Algis Manufacturing Co., Marshalltown, Iowa.  
AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill. See ad. inside front cover.  
Beman & Co., Binghamton, N. Y.  
Bostwick-Braun Co., The, Toledo, Ohio.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Grand Crossing Tack Co., Grand Crossing, Ill.  
H. P. Nail Co., Cleveland, Ohio.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Harriman Tack Co., Harriman, Tenn.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
James & Co. (Inc.), Chattanooga, Tenn.  
Kalamazoo Railroad Velocipede and Car Co., Kalamazoo, Mich.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

### 1855 TACKS—Phosphor Bronze—

Phosphor Bronze Smelting Co. (Ltd.), 2200 Washington Ave., Philadelphia, Pa.

### 1856 TACKS—Thumb—

American Book Co., 100 Washington Square, New York.  
Faber, Eberhard, 545 Pearl St., New York.  
York Tack and Nail Works, York, Pa.

### 1857 TAGS—

American Manufacturing Co., Battle Creek, Mich.  
American Railway Supply Co., 24 Park Place, New York.  
Dennison Manufacturing Co., 26 Franklin St., Boston, Mass.  
Philadelphia, Tag Co., 727 Filbert St., Philadelphia, Pa.

### 1858 TALLOW—

Abel & Co., 620 Cherry St., Macon, Ga.  
Armour Packing Co., Kansas City, Mo.  
Colgate & Co., 53 John St., New York.



## 1858 TALLOW—Continued.

Fairbank Co., N. K., Chicago, Ill.  
 Manhattan Oil Co., 51 Front St., New York.  
 Reardon & Sons, J., 24 Commerce St., Boston, Mass.  
 Swan & Finch Co., 151 Maiden Lane, New York.  
 White's Golden Lubricator Co., Cincinnati, Ohio.

## A1858 TANKS—Air—

SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

## B1858 TANKS—Annealing Pit—

SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

## 1859 TANKS—Galvanized Steel—

American Steel Tank Co., Mishawaka, Ind.  
 Appleton Manufacturing Co., Batavia, Ill.  
 Avery Stamping Co., Cleveland, Ohio.  
 Brooks Locomotive Works, Dunkirk, N. Y.  
 Davis & Farmer Manufacturing Co., Waltham, Mass.  
 Flint & Walling Manufacturing Co., Kendallville, Ind.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Riter-Conley Manufacturing Co., Pittsburg, Pa.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.

## 1860 TANKS—Gasoline—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Trageser Steam Copper Works, John, 447 W. 26th St., New York.

## 1861 TANKS—Iron—

Atlantic Works, 70 Border St., East Boston, Mass.  
 Bath Iron Works, Bath, Me.  
 Birmingham Boiler Works, Birmingham, Ala.  
 Brooks Locomotive Works, Dunkirk, N. Y.  
 Frick Co., Waynesboro, Pa.  
 Harry Steel Works, O. K., St. Louis, Mo.  
 Murray, Dougal & Co. (Ltd.), Milton, Pa.  
 Pittsburg Locomotive and Car Works, Pittsburg, Pa.  
 Remington Machine Co., Wilmington, Del.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
 Tudor Boiler Manufacturing Co., Cincinnati, Ohio.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Wolf Co., Fred W., 139 Rees St., Chicago, Ill.  
 Wood Manufacturing Co., John, Conshohocken, Pa.

## 1862 TANKS—Oil—

Bartlett, Hayward & Co., Baltimore, Md.  
 Carroll-Porter Boiler and Tank Co., Pittsburg, Pa.  
 Freeman & Sons Manufacturing Co., S., Racine, Wis.  
 Garrison Manufacturing Co., W. C., 75 Warren St., New York.  
 Harrisburg Manufacturing and Boiler Co., Harrisburg, Pa.  
 O'Brien Boiler Works Co., John, St. Louis, Mo.  
 SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

## 1862-1866

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### 1862 TANKS—Oil—Continued.

SINKER-DAVIS CO., Indianapolis, Ind. See ad. page A 4.  
Stacey Manufacturing Co., 239 Mill St., Cincinnati, Ohio.  
Wangler Boiler and Sheet Iron Works Co., Joseph F., St. Louis.  
Wilson & Co., F. Cortez, 259 Lake St., Chicago, Ill.

### A1862 TANKS—Torch—

SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.

### 1863 TANKS—Water—

Althouse-Wheeler Co., Waupun, Wis.  
Bartlett, Hayward & Co., Baltimore, Md.  
Burkhardt's Sons, George J., 2831 N. Broad St., Philadelphia, Pa.  
Carroll-Porter Boiler and Tank Co., Pittsburg, Pa.  
Fairbanks, Morse & Co., Franklin and Monroe Sts., Chicago, Ill.  
Flint & Walling Manufacturing Co., Kendallville, Ind.  
Frick Co., Waynesboro, Pa.  
Harry Steel Works, O. K., St. Louis, Mo.  
Hendrick Manufacturing Co. (Ltd.), Carbondale, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Logan & Son, Farrel, 52 Commercial St., Brooklyn, N. Y.  
Moline Pump Co., Moline, Ill.  
Munroe & Son, R., Pittsburg, Pa.  
Orrville Machine Co., Orrville, Ohio.  
Otto Gas Engine Works, Philadelphia, Pa.  
SCAIFE & SONS, W. B., Pittsburg, Pa. See ad. page A 8.  
Stacey Manufacturing Co., 239 Mill St., Cincinnati, Ohio.  
Stover Manufacturing Co., Freeport, Ill.  
U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad.  
page A 2.  
Vulcan Iron Works, Wilkesbarre, Pa.

### 1864 TANKS—Wind Mill—

Challenge Wind Mill and Feed Mill Co., Batavia, Ill.  
Fairbanks, Morse & Co., Franklin and Monroe Sts., Chicago, Ill.  
Flint & Walling Manufacturing Co., Kendallville, Ind.  
Gregory, William, Los Angeles, Cal.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Miller Engine and Manufacturing Co., Urbana, Ohio.  
Phelps & Bigelow Wind Mill Co., Kalamazoo, Mich.  
U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad.  
page A 2.  
Williams Manufacturing Co., Kalamazoo, Mich.

### 1865 TAPS—

Cincinnati Screw and Tap Co., The, Cincinnati, Ohio.  
Cleveland Twist Drill Co., Cleveland, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Standard Tool Co., The, Cleveland, Ohio.

### 1866 TAPS—Patch Bolt—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

1867 TAPS—Pipe—

Fairbanks, Morse & Co., Franklin and Monroe Sts., Chicago, Ill.  
 Holroyd & Co., Waterford, N. Y.  
 King & Co., J. M., Waterford, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 Pratt & Whitney Co., Hartford, Conn.  
 Standard Tool Co., Cleveland, Ohio.  
 Wiley & Russell Manufacturing Co., Greenfield, Mass.

1868 TAPS—Stay Bolt—

Cleveland Twist Drill Co., Cleveland, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

1869 TAPS AND DIES—

American Screw Co., Providence, R. I.  
 Armstrong Manufacturing Co., Bridgeport, Conn.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buek Manufacturing Co., M. M., St. Louis, Mo.  
 Butterfield & Co., Derby Line, Vt.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Carpenter Tap and Die Co., J. M., Pawtucket, R. I.  
 Champion Blower and Forge Co., Lancaster, Pa.  
 Cincinnati Tool Co., Cincinnati, Ohio.  
 Cleveland Twist Drill Co., Cleveland, Ohio.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Herrick, Charles E., Northampton, Mass.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Pratt & Whitney Co., Hartford, Conn.  
 Queen City Supply Co., Cincinnati, Ohio.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Standard Tool Co., Cleveland, Ohio.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1870 TAPE—Asbestos and India Rubber Woven—

Carey Manufacturing Co., The Philip, 415 E. Pearl St., Cincinnati.

1871 TAPE—Asbestos-Metallic Woven—

Carey Manufacturing Co., The Philip, 415 E. Pearl St., Cincinnati.

1872 TAPES—Insulating—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.  
 Boston Rubber Shoe Co., 245 Causeway, Boston, Mass.

## 1872-1880

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### 1872 TAPES—Insulating—Continued.

Boston Woven Hose and Rubber Co., Boston, Mass., Fred'k  
Swift & Co., Agents, Old Colony Bldg., Chicago, Ill.  
General Electric Co., Schenectady, N. Y.  
New York Insulated Wire Co., 15 Cortlandt St., New York.  
Simplex Electrical Co., 75 Cornhill St., Boston, Mass.

### 1873 TAPES—Measuring—

Keuffel & Esser Co., 127 Fulton St., New York.  
Lufkin Rule Co., Saginaw, Mich.

### 1874 TAR—Coal—

Armitage Manufacturing Co., Richmond, Va.  
Barrett Manufacturing Co., 290 Broadway, New York.  
Clayton Air Compressor Works, 26 Cortlandt St., New York.  
Garrett & Son, C. S., 20 S. Marshall St., Philadelphia, Pa.  
Solway Process Co., Syracuse, N. Y.  
Watson Co., H. F., Erie, Pa.

### 1875 TAR PRODUCTS—Coal—

Mathewson & Co., Wm. J., 182 Front St., New York.  
McClintock & Irvine, Allegheny, Pa.  
Mica Roofing Co., 73 Maiden Lane, New York.  
Monitor Oil Co., Cleveland, Ohio.  
Warren Chemical and Mfg. Co., 81 Fulton St., New York.  
Watson Co., H. F., Erie, Pa.

### 1876 TARPAULINS—

Cook & Bro., E. C., 40 Dearborn St., Chicago, Ill.  
Iroquois Bag and Oil Co., 275 Main St., Springfield, Mass.  
McHugh, John F., New York.  
Neville & Co., San Francisco, Cal.  
Skelton, Fred, 608 6th Ave., New York.  
Standard Oiled Clothing Co., 52 Leonard St., New York.

### 1877 TELEGRAPH APPARATUS—

Bunnell & Co., J. H., 76 Cortlandt St., New York.  
Fort Wayne Electric Corporation, Fort Wayne, Ind.  
General Electric Company, Schenectady, N. Y.  
Partrick, Carter & Wilkins, 125 S. 2d St., Philadelphia, Pa.  
Western Electric Co., 242 S. Jeffercon St., Chicago, Ill.  
Western Electrical Co., Omaha, Neb.

### 1878 TELEGRAPH COCKS—

Conroy, P. J., Island Rd. and S. 75th St., Philadelphia, Pa.

### 1879 TELEGRAPH KEY KNOBS—

Goodrich Co., B. F., Akron, Ohio.  
Gutta Percha and Rubber Mfg. Co., 35 Warren St., New York.  
India Rubber and Gutta Percha Insulating Co., Yonkers, N. Y.

### 1880 TELEGRAPH POLE STEPS—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. in-  
side front cover.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Michigan Bolt and Nut Works, Detroit, Mich.  
Vulcanus Forging Co., The, 965 Hamilton St., Cleveland, Ohio.

1881 TELEGRAPH REPEATING SETS—

Bunnell & Co., J. H., 76 Cortlandt St., New York.  
General Electric Co., Schenectady, N. Y.  
Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

1882 TELEGRAPH RESISTANCE BOXES—

Bunnell & Co., J. H., 76 Cortlandt St., New York.  
Fort Wayne Electric Corporation, Fort Wayne, Ind.  
General Electric Co., Schenectady, N. Y.  
Keystone Electrical Instrument Co., Philadelphia, Penn.  
Patrick, Carter & Wilkins, 125 S. 2d St., Philadelphia, Pa.  
Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

1883 TELEGRAPH RESISTANCE COILS—

Bunnell & Co., J. H., 76 Cortlandt St., New York.  
General Electric Co., Schenectady, N. Y.  
Partrick, Carter & Wilkins, 125 S. 2d St., Philadelphia, Pa.  
Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

1884 TELEGRAPH RIDGE IRONS AND BLOCKS—

Locke, Fred M., Victor, N. Y.

1885 TELEGRAPH SIDE BRACKETS—Galvanized for Insulating—

Locke, Fred M., Victor, N. Y.

1886 TELEGRAPH SPOONS—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Terre Haute Shovel and Tool Co., Terre Haute, Ind.

1887 TELEGRAPH SWITCH BOARDS—

Bunnell & Co., J. H., 76 Cortlandt St., New York.  
Partrick, Carter & Wilkins, 125 S. 2d St., Philadelphia, Pa.  
Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

1888 TELEPHONES—

American Electric Telephone Co., 171 S. Canal St., Chicago, Ill.  
American Watchman's Time Detector Co., 234 Broadway, N. Y.  
Farr Telephone Con. Supply Co., 357 Dearborn St., Chicago, Ill.  
Kokomo Telephone and Electric Mfg. Co., Kokomo, Ind.  
National Telephone Manufacturing Co., Boston, Mass.  
Reading Electric Manufacturing Co., 739 Penn St., Reading, Pa.  
Viaduct Electric Co., 10 S. Howard St., Baltimore, Md.  
Western Telephone Con. Co., 250 Clinton St., Chicago, Ill.  
Williams Electric Co., 80 Seneca St., Cleveland, Ohio.

1889 TELEPHONES—Acoustic—

Hubbard, William, Elgin, Ill.  
National Telephone Mfg. Co., Atlantic Ave., Boston, Mass.

1893 TENTS—

Boyle & Co., John, 203 Fulton St., New York.  
Cook & Bro., E. C., 40 Dearborn St., Chicago, Ill.  
Detroit Tent and Awning Co., Detroit, Mich.  
Gifford, John B., Fall River, Mass.  
Missouri Tent and Awning Co., 220 Chestnut St., St. Louis, Mo.

**1893 TENTS—Continued.**

Neville & Co., San Francisco, Cal.  
 Noon Bag Co., W. C., Portland, Me.  
 Patton & Co., R. J., 222 E. 4th St., Cincinnati, Ohio.  
 Yale & Co., R. M., 29 S. Market St., Boston, Mass.

**1894 THREADERS—Pipe—**

Armstrong Manufacturing Co., Bridgeport, Conn.  
 Crane Co., 10 N. Jefferson St., Chicago, Ill.  
 Jarecki Manufacturing Co., Erie, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Rochester Pipe Tonga Co., Rochester, N. Y.  
 Walworth Manufacturing Co., Boston, Mass.

**A1894 TICKETS—Lunch Coupon Books—**

ALLISON COUPON CO., THE, Indianapolis, Ind.

**1895 TICKETS—Railway—**

Allen, Lane & Scott, 1211 Clover St., Philadelphia, Pa.  
 American Bank Note Co., 86 Trinity Place, New York.  
 Franklin-Lee Bank Note Co., 142 Broadway, New York.  
 International Bank Note Co., 18 Broadway, New York.  
 New York Bank Note Co., 75 6th Ave., New York.  
 Rand-Avery Supply Co., Boston, Mass.  
 Rand, McNally & Co. (Inc.), 168 Adams St., Chicago, Ill.

**1896 TICKET CASES—**

Hamilton Manufacturing Co., Two Rivers, Wis.  
 New Haven Clock Co., New Haven, Conn.  
 Rand-Avery Supply Co., 117 Franklin St., Boston, Mass.  
 Woodman Manufacturing and Supply Co., The, Boston, Mass.

**1897 TIES—**

Badger Lumber Co., Kansas City, Mo.  
 Baxter & Co., G. S., 18 Wall St., New York.  
 Bradley-Ramsey Lumber Co., Lake Charles, La.  
 Clark Manufacturing Co., Cadott, Wis.  
 Conquest & Co., T. L., Richmond, Va.  
 Coolidge Fuel and Supply Co., Minneapolis, Minn.  
 Defiance Box Co., Defiance, Ohio.  
 Field, C. C., Geneva, Penn.  
 Loud & Son Lumber Co., H. M., Oscoda, Mich.  
 RAILWAY EQUIPMENT AND FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.  
 Roper Lumber Co., John L., Norfolk, Va.  
 Southern Pine Co. of Georgia, Savannah, Ga.  
 STONE, FRANK B., Fisher Bldg., Chicago, Ill. See ad. page A 6.  
 Texas Tram and Lumber Co., Beaumont, Texas.  
 Thornton, H. H., Pensacola, Fla.

**1898 TIES—Cedar—**

RAILWAY EQUIPMENT AND FINANCE CO., THE, Majestic  
 Bldg., Indianapolis, Ind. See ad. page B 1.  
 Ringer & Co., E. F., 3960 Drexel Boul., Chicago, Ill.

1898 TIES—Cedar—Continued.

Roper Lumber Co., John L., Norfolk, Va.  
Sterling & Son, Monroe, Mich.  
STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.  
White Marble Lime Co., Manistique, Mich.

1899 TIES—Creosoted—

Michigan Pipe Co., Bay City, Mich.  
STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

1900 TIES—Hemlock—

Lindsley Bros., Menominee, Mich.  
RAILWAY EQUIPMENT AND FINANCE CO., THE, Majestic  
Bldg., Indianapolis, Ind. See ad. page B 1.  
STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

1901 TIES—Metal—

Carnegie Steel Co. (Ltd.), Pittsburg, Pa.  
Mahoning Valley Iron Co., Youngstown, Ohio.  
Pennsylvania Steel Co., Steelton, Pa.  
Philadelphia Railway Track Equipment Co., Philadelphia, Pa.

1902 TIES—Oak—

Baxter & Co., G. S., 18 Wall St., New York.  
Clarke, C. C., Ironton, Ohio.  
Dohoney, Thomas, Defiance, Ohio.  
Griffen Lumber Co., George M., St. Louis, Mo.  
Johnson & Son, B., Richmond, Ind.  
Nebecker & Son, Indianapolis, Ind.  
RAILWAY EQUIPMENT AND FINANCE CO., THE, Majestic  
Bldg., Indianapolis, Ind. See ad. page B 1.  
Ringer & Co., E. F., 3960 Drexel Boul., Chicago, Ill.  
STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

A1902 TIES—Yellow Pine—

CRESCENT YELLOW PINE LUMBER CO., Chicago, Ill. See  
ad. page A 4.  
Frost Trigg Lumber Co., St. Louis, Mo.  
STONE, F. B., Fisher Bldg., Chicago, Ill. See ad. page A 6.

1903 TIE PLATES—

Dilworth, Porter & Co. (Ltd.), Pittsburg, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Q. & C. Co., 700 Western Union Bldg., Chicago, Ill.  
Railroad Supply Co., The, Bedford Bldg., Chicago, Ill.

1904 TIE PLUGS—

Goldie & Co., Wm. Jr., Pittsburg, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1905 TILE—Drain—

Birmingham Fire Brick Works, Birmingham, Ala.  
Boynton, C. W., Sewaren, N. J.  
Burch & Co., H. O., New London, Conn.  
Calumet Fire Clay Co., Calumet, Ohio.

1905 TILE—Drain—Continued.

Clark & Sons (Inc.), N., San Francisco, Cal.  
 Gladding, McBean & Co., Lincoln, Cal.  
 Goodwin Bros. Pottery Co., Elmwood, Conn.  
 Iowa Pipe and Tile Co., Des Moines, Iowa.  
 Louisville Drain Tile Co., Bishof, Ky.  
 Montague & Co., Chattanooga, Tenn.  
 Pacific Clay Manufacturing Co., Los Angeles, Cal.  
 Pomona Terra Cotta Co., Pomona, N. C.

1906 TILE—Fire Box Arch—

Evens & Howard Fire Brick Co., St. Louis, Mo.  
 GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.  
 See ad. page A 2.  
 Parker-Russell Mining and Mfg. Co., The, St. Louis, Mo.

1907 TILE—Fire Brick—

GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.  
 See ad. page A 2.

1908 TILE—Fire Clay—

GARDEN CITY SAND CO., THE, Security Bldg., Chicago, Ill.  
 See ad. page A 2.  
 Parker-Russell Mining and Mfg. Co., The, St. Louis, Mo.

1909 TILE—Roofing—

American Cement Tile Co., Pittsburg, Pa.  
 Ludowici Roofing Tile Co., 508 Chamb'r of Com'ce Bldg., Chicago.

A1909 TILING—Rubber—Interlocking—

New York Belting and Packing Co. (Ltd.), New York.

1910 TIMBER—Bridge—

Atlanta Lumber Co., Atlanta, Ga.  
 Barnes, G. H., 1014 Chemical Bldg., St. Louis, Mo.  
 Bradley-Ramsey Lumber Co., Lake Charles, La.  
 Coolidge Fuel and Supply Co., Minneapolis, Minn.  
 CRESCENT YELLOW PINE LUMBER CO., 171 LaSalle St.  
 Chicago, Ill. See ad. page A 4.  
 Frost-Trigg Lumber Co., Lincoln Trust Bldg., St. Louis, Mo.  
 Griffen Lumber Co., George M., St. Louis, Mo.  
 Mann Bros., 6 Wabash Ave., Chicago, Ill.  
 Mitchell & Rowland Lumber Co., Toledo, Ohio.  
 Nona Mills Co., Nona, Texas.  
 Southern Pine Co. of Georgia, Savannah, Ga.  
 STONE, FRANK B., Fisher Bldg., Chicago. See ad. page A 6.  
 Thornton, H. H., Pensacola, Fla.  
 Vanderbilt & Hopkins, 120 Liberty St., New York.

1911 TIMBER—Bridge—Creosoted—

Michigan Pipe Co., Bay City, Mich.

1912 TIMBER—Ship—

Mitchell & Rowland Lumber Co., Toledo, Ohio.  
 Smith & Co., W. H. H., Toledo, Ohio.  
 Stiles, W. C., Warren, Ohio.  
 Thornton, H. H., Pensacola, Fla.  
 Wolff & Zwicker Iron Works, Portland, Ore.



1913 TIMBER-Sills-Car-

Barnes, G. H., 1014 Chemical Bldg., St. Louis, Mo.  
CRESCENT YELLOW PINE LUMBER CO., 171 LaSalle St.,  
Chicago, Ill. See ad. page A 4.  
Frost-Trigg Lumber Co., Lincoln Trust Bldg., St. Louis, Mo.  
Griffen Lumber Co., George M., St. Louis, Mo.

1914 TIME DETECTORS-Watchmen's-

American Supply Co., Providence, R. I.  
American Watchman's Time Detector Co., 234 Broadway, N. Y.  
General Watchmen's Time Detector Co., 1202 Myrtle Ave., Brook-  
lyn, N. Y.  
Hersey Manufacturing Co., South Boston, Mass.  
Imhauser, E., 206 Broadway, New York.

1915-TIN-

Baker & Adamson Chemical Co., Easton, Pa.  
Bissell Chemical Co., McKeesport, Pa.  
Bostwick-Braun Co., The, Toledo, Ohio.  
Buck Manufacturing C., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Chadwick Lead Works, Boston, Mass.  
Crerar, Adams & Co., Chicago, Ill.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
James & Co. (Inc.), Chattanooga, Tenn.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
Williams & Son, E. A., 105 Plymouth St., Jersey City, N. J.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1916 TIN-Bar-

Selby Smelting and Lead Co., San Francisco, Cal.  
Williams & Son, E. A., 105 Plymouth St., Jersey City, N. J.

1917 TIN-Phosphorized-

Damascus Bronze Co., Pittsburg, Pa.

1918 TIN-Pig-

Great Western Smelting and Refining Co., Chicago, Ill.

1919 TIN-Roofing-

American Galvanizing and Tin Plate Co., Cincinnati, Ohio.  
Beaver Tin Plate Co., Lisbon, Ohio.  
Britton Rolling Mill Co., Cleveland, Ohio.  
Canonsburg Iron and Steel Co., Pittsburg, Pa.  
Marshall Bros. & Co., 1156 Beach St., Philadelphia, Pa.  
Old Dominion Iron and Nail Works Co., Richmond, Va.  
Taylor Co., N. & G., 301 Branch St., Philadelphia, Pa.  
Wheeling Corrugating Co., Wheeling, W. Va.

1920 TIRES—Car and Locomotive—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Loraine Steel Co., Loraine, Ohio.  
Midvale Steel Co., Nicetown, Philadelphia, Pa.  
Mowry Car Wheel Works, Cincinnati, Ohio.  
Prosser & Son, Thomas, 15 Gold St., New York.  
Standard Steel Works, Harrison Bldg., Philadelphia, Pa.

1921 TIRES—Steel, Car and Locomotive—

Cambria Steel Co., Philadelphia, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Latrobe Steel Co., 1200 Girard Bldg., Philadelphia, Pa.  
Loraine Steel Co., Loraine, Ohio.  
Midvale Steel Co., Nicetown, Philadelphia, Pa.  
Mowry Car Wheel Works, Cincinnati, Ohio.  
Prosser & Son, Thomas, 15 Gold St., New York.  
Standard Steel Works, Harrison Bldg., Philadelphia, Pa.  
THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.

1922 TONGS—Pipe—

Ashcroft Manufacturing Co., 85 Liberty St., New York.  
Bay State Iron Works, Erie, Pa.  
Darling Pump and Manufacturing Co., Williamsport, Pa.  
Hollands Manufacturing Co., Erie, Pa.  
Jarecki Manufacturing Co., Erie, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1923 TONGS—Rail—

Atha Tool Co., Newark, N. J.  
Byram & Co., Detroit, Mich.  
DETROIT STEEL AND SPRING CO., Detroit, Mich. See ad.  
page A 8.  
Dickson Manufacturing Co., Scranton, Pa.  
Doble Co., Abner, San Francisco, Cal.  
Harvey, H. H., Boston, Mass.  
Iron City Tool Works (Ltd.), Pittsburg, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Troy Steel Co., Troy, N. Y.  
Verona Tool Works, Pittsburg, Pa.

1925 TOOLS—Barbed Wire Fence—

AMERICAN STEEL AND WIRE CO., The Rookery, Chicago,  
Ill. See ad. page inside front cover.  
Gilbert & Bennett Manufacturing Co., 44 Cliff St., New York.  
Over, Ewald, Indianapolis, Ind.  
Warner Hardware Co., Freeport, Ill.

1926 TOOLS—Blacksmiths'—

Anderson, Du Puy & Co., Pittsburg, Pa.  
Bostwick-Braun Co., The, Toledo, Ohio.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Butterfield & Co., Derby Line, Vt.  
Cahill, Swift & Co., St. Louis, Mo.  
Chicago Scale Co., 292 Jackson Boulevard, Chicago, Ill.  
Columbus Manufacturing Co., Columbus, Ohio.

1926 TOOLS—Blacksmiths'—Continued.

Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Eyeless Tool Co., 26 Cortlandt St., New York.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Foos Manufacturing Co., Springfield, Ohio.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Harvey, H. H., 105 High St., Boston, Mass.  
 Haven Co., James L., 56 Plum St., Cincinnati, Ohio.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Holroyd & Co., Waterford, N. Y.  
 Hunt Co., C. W., 45 Broadway, New York.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 King & Co., J. M., Waterford, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 New Orleans Railway and Mill Supply Co. (Ltd.), N. Orleans, La.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Racine Malleable and Wrought Iron Co., Racine, Wis.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Warner & Son, M. R., Cromwell, Conn.  
 Wells Bros. & Co., Greenfield, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1927 TOOLS—Boiler Makers'—

Albany Steam Trap Co., Albany, N. Y.  
 Ashcroft Manufacturing Co., 85 Liberty St., New York.  
 Cleveland Punch and Shear Works Co., Cleveland, Ohio.  
 Clow & Sons (Inc.), James B., Lake and Franklin Sts., Chicago.  
 Crescent Manufacturing Co., Cleveland, Ohio.  
 Dallett & Co., Thos. H., York St. and Sedgley Ave., Philadelphia.  
 Dudgeon, Richard, 24 Columbia St., New York.  
 Hilles & Jones Co., Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Pedrick & Ayer Co., 1001 Hamilton Ave., Philadelphia, Pa.  
 Prosser & Son, Thomas, 15 Gold St., New York.  
 Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

1928 TOOLS—Bridge Builders'—

Cleveland Punch and Shear Works Co., Cleveland, Ohio.  
 Hilles & Jones Co., Wilmington, Del.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1930 TOOLS—Ice—

Anderson & Sons, William H., Detroit, Mich.  
 Barbee Iron and Wire Works, 44 Dearborn St., Chicago, Ill.  
 Elyria Variety Works, Jackson, Mich.  
 Erie Specialty Co., Erie, Pa.  
 Harvey, Henry H., Boston, Mass.  
 Knickerbocker Ice Co., 6th and Arch Sts., Philadelphia, Pa.  
 Norton & Co., H. M., Chester, Conn.  
 Palmer Hardware Manufacturing Co., Troy, N. Y.  
 Stover Manufacturing Co., Freeport, Ill.

## 1931-1933

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### 1931 TOOLS—Locomotive—

Cleveland Twist Drill Co., Cleveland, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

### 1932 TOOLS—Machine—

Barnes Co., W. F. & John, Rockford, Ill.  
Bement, Miles & Co., Philadelphia, Pa.  
Blaisdell & Co., P., Worcester, Mass.  
Dietz, Schumacher & Boye, Queen City Ave., Cincinnati, Ohio.  
Fay & Egan Co., J. A., Cincinnati, Ohio.  
Fitchburg Machine Works, Fitchburg, Mass.  
Garvin Machine Co., Spring and Varick Sts., New York.  
Gray Co., G. A., 477 Sycamore St., Cincinnati, Ohio.  
Hendey Machine Co., Torrington, Conn.  
Johnson & Co., I. H. Jr., 1422 Callohill St., Philadelphia, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Lodge & Shipley Machine Tool Co., Cincinnati, Ohio.  
McDowell, Stocker & Co., 59 Canal St., Chicago, Ill.  
Niles Tool Works Co., Hamilton, Ohio.  
Pratt & Whitney Co., The, Hartford, Conn.  
Prentice Bros., Worcester, Mass.  
Putnam Machine Co., Fitchburg, Mass.  
San Francisco Tool Works, San Francisco, Cal.  
THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.  
Underwood & Co., H. B., 1025 Hamilton St., Philadelphia, Pa.  
Warner & Swasey, Cleveland, Ohio.

### 1933 TOOLS—Machinists'—

American Saw Co., Trenton, N. J.  
Bement, Miles & Co., Philadelphia, Pa.  
Billings & Spencer Co., Hartford, Conn.  
Brown & Sharpe Manufacturing Co., Providence, R. I.  
Cincinnati Milling Machine Co., Spring Grove Ave., Cincinnati.  
Eyeless Tool Co., 26 Cortland St., New York.  
Fairbanks, Morse & Co., Chicago, Ill.  
Frasse Co., 19 Warren St., New York.  
Gray Co., G. A., 481 Sycamore St., Cincinnati, Ohio.  
Hewes & Phillips Iron Works, Newark, N. J.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Lodge & Shipley Machine Tool Co., 6th St., Cincinnati, Ohio.  
Manning, Maxwell & Moore, 85 Liberty St., New York.  
Morse Twist Drill and Machine Co., New Bedford, Mass.  
Niles Tool Works Co., Hamilton, Ohio.  
Pedrick & Ayer Co., 1001 Hamilton St., Philadelphia, Pa.  
Pond Machine Tool Co., Plainfield, N. J.  
Pratt & Whitney Co., Hartford, Conn.  
Putnam Machine Co., Fitchburg, Mass.  
Reed, Joseph B., Cairo, Ill.  
San Francisco Tool Works, San Francisco, Cal.  
Sellers & Co. (Inc.), Wm., 1600 Hamilton St., Philadelphia, Pa.  
Standard Tool Co., Athol, Mass.  
Underwood & Co., H. B., 1025 Hamilton St., Philadelphia, Pa.  
Webster & Perks Tool Co., Spring St., Springfield, Ohio.

1934 TOOLS—Planer—

Anderson & Sons, W. H., Detroit, Mich.  
Bement, Miles & Co., Philadelphia, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Pratt & Whitney Co., Hartford, Conn.

1935 TOOLS—Pneumatic—

American Pneumatic Tool Co., 844 Washington St., New York.  
CHICAGO PNEUMATIC TOOL CO., Monadnock Block, Chicago, Ill. See ad. page B 2.  
Clayton Air Compressor Works, 26 Cortlandt St., New York.  
Garry Iron and Steel Roofing Co., Cleveland, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Philadelphia Pneumatic Tool Co., Philadelphia, Pa.  
Q. & C. Co., 700 Western Union Bldg., Chicago, Ill.  
Scully Steel and Iron Co., 130 Fulton St., New York.  
Standard Pneumatic Tool Co., Marquette Bldg., Chicago, Ill.  
Standard Railway Equipment Co., Gr't Northern Bldg., Chicago.  
Western Railway Equipment Co., St. Louis, Mo.

1936 TOOLS—Telegraph Construction—

Dicke Tool Co., Downers Grove, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

1937 TOOLS—Threading—

Gould & Eberhardt, Newark, N. J.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Morse Twist Drill and Machine Co., New Bedford, Mass.  
Pratt & Whitney Co., Hartford, Conn.

1938 TOOLS—Track—

Bostwick-Braun Co., The, Toledo, Ohio.  
Eyeless Tool Co., The, 26 Cortlandt St., New York.  
Iron City Tool Works (Ltd.), Pittsburg, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

1939 TORCHES—Construction—Portable—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
MacLeod & Clark, 457 E. Front St., Cincinnati, Ohio.

1940 TORCHES—Engine—

Bostwick-Braun Co., The., Toledo, Ohio.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Dayton Malleable Iron Co., Dayton, Ohio.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Gem Manufacturing Co., Pittsburg, Pa.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
James & Co. (Inc.), Chattanooga, Tenn.

## 1940-1948

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### 1940 TORCHES—Engine—Continued.

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Lindley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
New Orleans Railway and Mill Supply Co. (Ltd.), N. Orleans, La.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
Standard Lighting Co., Cleveland, Ohio.  
Stoutenborough, X., 277 Pearl St., New York.  
Vogel & Bros., Wm., S. Brooklyn, N. Y.  
Wall Manufacturing Co., C. P., 718 Preble Ave., Allegheny, Pa.  
Wellington Manufacturing Co., 468 Cherry St., New York.  
ZELNICKER, W. A., St. Louis, Mo. See ad. page A 5.

### 1941 TORCHES—Iron—

Dayton Malleable Iron Co., The, Dayton, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

### 1942 TORCHES—Linemen's—

Buck Manufacturing Co., M. M., St. Louis, Mo.

### 1943 TORCHES—Locomotive—Steel—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Wall Manufacturing Co., P., 718 Preble Ave., Allegheny, Pa.

### 1944 TORCHES—Steel—

Gem Manufacturing Co., Pittsburg, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

### 1945 TORPEDOES—

Acme Railway Signal and Manufacturing Co., Peoria, Ill.  
Backes Sons, Michael, Wallingford, Conn.  
Consolidated Fire Works Co., 9 Park Place, New York.  
Detwiller & Street Fire Works Mfg. Co., 172 Fulton St., N. Y.  
GRANITE RAILWAY SIGNAL CO., 447 Wood St., Pittsburg.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Western Railway Signal Co., Fostoria, Ohio.

### A1945 TORPEDO ADJUSTER—

GRANITE RAILWAY SIGNAL CO., 447 Wood St., Pittsburg, Pa.

### B1945 TRACK MOVER—

Creese, D. C., New Brighton, Pa.

### 1946 TRAMMEL POINTS—

Athol Machine Co., Athol, Mass.  
Stanley Rule and Level Co., New Britain, Conn.  
Tower & Lyon, 95 Chambers St., New York.

### 1947 TREADS—Car Step—

Boston Belting Co., Boston, Mass.  
New York Belting and Packing Co., New York.  
Rubber Step Manufacturing Co., Exeter, N. H.

### 1948 TRIANGLES—Steel—

Disston & Sons, Henry, Tacony and N. Front Sts., Philadelphia.

1949 TRIMMINGS—Car—

Adams & Westlake Co., Ontario and N. Frank Sts., Chicago, Ill.  
 Brill Co., J. G., S. 62d St. and Woodland Ave., Philadelphia, Pa.  
 Dayton Manufacturing Co., Dayton, Ohio.  
 Gaumer Co., John L., N. W. cor. 11th and Race Sts., Philadelphia.  
 Howard & Co., James L., Hartford, Conn.  
 Jackson & Sharp Co., Wilmington, Del.  
 McKay Curtain Co., Wilmington, Del.  
 McKenna & Bro., James J., 424 E. 23d St., New York.  
 Miller Lock Co., 4523 Tacony St., Philadelphia, Pa.  
 Ohio Brass Co., Mansfield, Ohio.  
 Smith, Thomas T., 352 Pearl St., New York.  
 Stewart & Mattson Mfg. Co., 2042 N. 10th St., Philadelphia, Pa.  
 Whiting & Rosenberger Co., Real Estate Trust Bldg., Philadelphia.

1950 TRIMMINGS—Engine—

Crosby Steam Gage and Valve Co., Oliver St., Boston, Mass.  
 Lunkenheimer Co., Cincinnati, Ohio.  
 McGowan Co., John H., Cincinnati, Ohio.

1951 TRIPOLI—

Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Hansen & Van Winkle Co., Newark, N. J.

1952 TRUCKS—Hook and Ladder—

Fire Extinguisher Mfg. Co., 357 Canal St., New York.  
 Gleason & Bailey Mfg. Co., 20 W. Houston St., New York.  
 Hayward & Co., S. F., 357 Canal St., New York.  
 La France Fire Engine Co., Elmira, N. Y.  
 Racine Fire Engine Co. (Ltd.), Racine, Wis.  
 Rumsey & Co. (Ltd.), Seneca Falls, N. Y.

1953 TRUCKS—Square Box—

Roberts Car and Wheel Co., The, Three Rivers, Mich.

1954 TRUCKS—Steel—Car—

American Steel Foundry Co., St. Louis, Mo.  
 Cloud Steel Truck Co., The, 1425 Old Colony Bldg., Chicago, Ill.  
 Shickle, Harrison & Howard Iron Co., St. Louis, Mo.  
 Standard Car Truck Co., Old Colony Bldg., Chicago, Ill.

1955 TRUCKS—Steel—Rolled—

Sterlingworth Railway Supply Co., Easton, Pa.

1956 TRUCKS—Warehouse—

Ames Plow Co., Boston, Mass.  
 Belcher & Taylor Agricultural Tool Co., Chicopee Falls, Mass.  
 Benicia Agricultural Works, Benicia, Cal.  
 Boston and Lockport Block Co., Boston, Mass.  
 Buffalo Scale Co., Buffalo, N. Y.  
 Cochrane, David W., 195 South 5th Ave., New York.  
 Crane Bros., Westfield, Mass.  
 Farquhar & Co., A. B., York, Pa.  
 Horner & Co., W. P., Danville, Va.  
 Hubbard, H. N., 18 Cliff St., New York.  
 Hieckhefer Elevator Co., A., Milwaukee, Wis.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 1956-1962

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### 1956 TRUCKS—Warehouse—Continued.

Lansing Wheelbarrow Co., Lansing, Mich.  
Nutting Truck Co., Fairbault, Minn.  
Sidney Steel Scraper Co., Sidney, Ohio.  
Tiffin Agricultural Works, Tiffin, Ohio.  
Tucker & Dorsey Manufacturing Co., Indianapolis, Ind.  
Whitehurst & Co., R. W., Norfolk, Va.  
Whitman Agricultural Co., St. Louis, Mo.

### 1957 TRUCK FRAMES—Car—

Kindl Car Truck Co., The, Old Colony Bldg., Chicago, Ill.  
Pressed Steel Car Co., Pittsburg, Pa.

### 1958 TRUCK FRAMES—Locomotive—

Kindl Car Truck Co., The, Old Colony Bldg., Chicago, Ill.

### 1959 TUBS—Hoisting—

Evans, F. H., 956 Kent Ave., Brooklyn, N. Y.  
Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Ryan-McDonald Manufacturing Co., 44 South St., Baltimore, Md.

### 1960 TUBS—Self Dumping—

Carlin's Sons, Thomas, Allegheny, Pa.  
Clark Co., W. J., Salem, Ohio.  
Dederick's Sons, P. K., Albany, N. Y.  
Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Pittsburg Bridge Co., 38th St., Pittsburg, Pa.  
Ryan-McDonald Manufacturing Co., 44 South St., Baltimore, Md.  
Sharon Boiler Works (Ltd.), Sharon, Pa.

### 1961 TUBS—Self-Filling—

Fraser & Chalmers, 12th St. and Washtenaw Ave., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

### 1962 TUBES—Boiler—

Allison Mfg. Co., 32d and Walnut Sts., Philadelphia, Pa.  
American Tube and Iron Co., Middletown, Pa.  
Atlantic Tube Co., 1209 Park Bldg., Pittsburg, Pa.  
Besly & Co., Charles H., 10 N. Canal St., Chicago, Ill.  
Chester Pipe and Tube Co., 267 S. 4th St., Philadelphia, Pa.  
Crane, Churchill Co., Omaha, Neb.  
Duquense Tube Works Co., Pittsburg, Pa.  
Justice & Co., Philip S., 14 N. 5th St., Philadelphia, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
National Tube Works Co., 70 Federal St., Boston, Mass.  
Pittsburg Tube Co., Pittsburg, Pa.  
Prosser & Son, Thomas, 15 Gold St., New York.  
Reading Iron Co., Reading, Pa.  
Riverside Iron Works (Inc.), Wheeling, W. Va.  
Seamless Steel Tube Co., The, Detroit, Mich.  
Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
Shelby Steel Tube Co., Cleveland, Ohio.



1962 TUBES—Boiler—Continued.

Simmons Co., John, 108 Center St., New York.  
Standard Seamless Tube Co., Pittsburg, Pa.  
THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.  
Tyler Tube and Pipe Co., Washington, Pa.

1963 TUBES—Boiler—Steel—

Atlantic Tube Co., 1209 Park Bldg., Pittsburg, Pa.  
Justice & Co., Philip S., 14 N. 5th St., Philadelphia, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Prosser & Sons, Thomas, 15 Gold St., New York.  
Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
Seamless Steel Tube Co., The, Detroit, Mich.  
Shelby Steel Tube Co., Cleveland, Ohio.  
Standard Seamless Tube Co., Pittsburg, Pa.

1964 TUBES—Brass—

American Tube Works, 137 Milk St., Boston, Mass.  
Bridgeport Brass Co., Bridgeport, Conn.  
Detroit Copper and Brass Rolling Mills, Detroit, Mich.  
Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
Manhattan Brass Co., 338 E. 28th St., New York.  
McNab & Harlan Manufacturing Co., Paterson, N. J.  
Randolph & Clowes, Waterbury, Conn.  
Rome Brass and Copper Co., Rome, N. Y.  
Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.

1965 TUBES—Copper—

American Tube Works, 137 Milk St., Boston, Mass.  
Bridgeport Brass Co., Bridgeport, Conn.  
Detroit Copper and Brass Rolling Mills, Detroit, Mich.  
Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
Plume & Atwood Manufacturing Co., Waterbury, Conn.  
Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
Waterbury Brass Co., Waterbury, Conn.

A1965 TUBES—Steel—

Atlantic Tube Co., 1209 Park Bldg., Pittsburg, Pa.  
Chester Pipe and Tube Co., 267 S. 4th St., Philadelphia, Pa.  
Ellwood Ivins Tube Co., Oak Lane, Philadelphia, Pa.  
Justice & Co., Philip S., 14 N. 5th St., Philadelphia, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Mansfield Machine Works, Mansfield, Ohio.  
Marsh & Co., James P., 224 Washington St., Chicago, Ill.  
Prosser & Son, Thomas, 15 Gold St., New York.  
Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
Seamless Steel Tube Co., The, Detroit, Mich.  
Shelby Steel Tube Co., Cleveland, Ohio.  
Standard Seamless Tube Co., Pittsburg, Pa.

B1965 TUBES—Stay—

Seamless Steel Tube Co., The, Detroit, Mich.

1966 TUBES—Water Gauge—Glass—

Ashcroft Manufacturing Co., 85 Liberty St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Star Brass Manufacturing Co., 53 Oliver St., Boston, Mass.

## 1967-1971

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### 1967 TUBING—Flexible—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Metallic Flexible Tubing Co., 254 S. 2d St., Philadelphia, Pa.  
Stowe Flexible Shaft Co., Philadelphia, Penn.  
Stow Manufacturing Co., Binghamton, N. Y.

### 1968 TURN BUCKLES—

American Bolt Co., Lowell, Mass.  
Cleveland City Forge and Iron Co., Cleveland, Ohio.  
Columbus Bolt Works, Columbus, Ohio.  
Continental Bolt and Iron Works, 36 N. Franklin St., Chicago, Ill.  
Diskson Manufacturing Co., Scranton, Pa.  
Hoopes & Townsend, 1330 Buttonwood St., Philadelphia, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Merrill Bros., Kent Ave., Brooklyn, N. Y.  
Michigan Bolt and Nut Works, Detroit, Mich.  
Moran Bolt and Nut Manufacturing Co., St. Louis, Mo.  
Republic Iron and Steel Co., Chicago, Ill.  
Sternbergh & Son, J. H., Reading, Pa.  
THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.

### 1969 TYPE—Steel, for Typewriter—

New York Stencil Works, 100 Nassau St., New York.

### 1970 TYPEWRITER SUPPLIES—

American Writing Machine Co., 302 Broadway, New York.  
Densmore Typewriter Co., 316 Broadway, New York.  
Underwood & Co., John, 30 Vesey St., New York.  
United Typewriter and Supplies Co., 316 Broadway, New York.  
Webster Co., F. S., Boston, Mass.  
Wyckoff, Seamans & Benedict, 327 Broadway, New York.

### 1971 TYPEWRITING MACHINES—

American Typewriter Co., 265 Broadway, New York.  
American Writing Machine Co., 302 Broadway, New York.  
Blickensderfer Manufacturing Co., Stamford, Conn.  
Crandall Machine Co., Groton, N. Y.  
Densmore Typewriter Co., 316 Broadway, New York.  
Duplex Jewett Typewriters, Des Moines, Ia.  
Elliott & Hatch Book Typewriter Co., 290 Broadway, New York.  
Fox Typewriter Co., The, Grand Rapids, Mich.  
Hammond Typewriter Co., 69th St., East River, New York.  
Hartford Typewriter Co., Hartford, Conn.  
Hill, Edgar A., 889 N. Ashland St., Chicago, Ill.  
(Franklin) Inter-State Typewriter Co., 293 Broadway, New York.  
Munson Typewriter Co., 94 Wendell St., Chicago, Ill.  
National Typewriter Co., Boston, Mass.  
Oliver Typewriter Co., 101 Dearborn St., Chicago, Ill.  
Pope Manufacturing Co., Hartford, Conn.  
Remington-Sholes Co., 127 Rees St., Chicago, Ill.  
Simplex Typewriter Co., 24 E. 13th St., New York.  
Smith-Premier Typewriter Co., Syracuse, N. Y.  
(Underwood) Wagner Typewriter Co., 218 Broadway, New York.  
Williams Typewriter Co., Derby, Conn.  
(Remington) Wyckoff, Seamans & Benedict, 327 Broadway, N. Y.  
Yost Writing Machine Co., 316 Broadway, New York.

1972 UNIFORMS—

Browning, King & Co., 408 Broome St., New York.  
 Cairns & Bro., 143 Grand St., New York.  
 Lilley & Co., M. C., Columbus, Ohio.  
 Newman & Blehl, 807 Pine St., St. Louis, Mo.  
 Pettibone Bros. Manufacturing Co., Cincinnati, Ohio.  
 Shillito Co., John, Cincinnati, Ohio.  
 Singer & Co., A. L., 233 Monroe St., Chicago, Ill.  
 Work Bros. & Co., cor. 5th Ave. and Jackson Boul., Chicago, Ill.

1973 UNIONS—Malleable Iron—

Davis Co., The John, 51 Michigan St., Chicago, Ill.  
 Flagg & Co., Stanley G., Philadelphia, Pa.

1974 VALVES—Air—

Chapman Valve Manufacturing Co., Indian Orchard, Mass.  
 Crosby Steam Gage and Valve Co., Oliver St., Boston, Mass.  
 Davis & Co., G. M., Chicago, Ill.  
 Eddy Valve Co., Waterford, N. Y.  
 Jenkins Bros., 71 John St., New York.  
 Lunkenheimer Co., The, Cincinnati, Ohio.  
 Marsh & Co., James P., 224 Washington St., Chicago, Ill.  
 Sturtevant Co., B. F., Boston, Mass.

1975 VALVES—Allfree—

Locomotive Appliance Co., 1504 Fisher Bldg., Chicago, Ill.

1976 VALVES—Angle—

Belknap Manufacturing Co., Bridgeport, Conn.  
 Chapman Valve Manufacturing Co., Indian Orchard, Mass.  
 Crane Co., 10 N. Jefferson St., Chicago, Ill.  
 Crosby Steam Gage and Valve Co., Boston, Mass.  
 Davis Co., The John, Chicago, Ill.  
 Detroit Lubricator Co., Detroit, Mich.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Lunkenheimer Co., Cincinnati, Ohio.  
 Monarch Governor and Machine Co., Indianapolis, Ind.  
 Springfield Brass Co., Springfield, Ohio.

1977 VALVES—Asbestos Packed—

Ashton Valve Co., Boston, Mass.  
 Chapman Valve Manufacturing Co., Indian Orchard, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

1978 VALVES—Automatic Float—

Poage, John N., Cincinnati, Ohio.

1979 VALVES—Back Pressure—

Davis & Co., G. M., Chicago, Ill.  
 Davis Co., John, 51 Michigan St., Chicago, Ill.  
 Eaton, Cole & Burnham Co., 253 Broadway, New York.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Locke Regulator Co., Salem, Mass.  
 Stephens Manufacturing Co., Roe, Detroit, Mich.

## 1980-1985

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### 1980 VALVES—Balanced—

Belknap Manufacturing Co., Bridgeport, Conn.  
Davis Co., The John, Chicago, Ill.  
Detroit Lubricator Co., Detroit, Mich.  
Gardner Governor Co., Quincy, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Mason Regulator Co., Boston, Mass.  
Vulcan Iron Works, Wilkesbarre, Pa.

### 1981 VALVES—Balanced Piston—

American Balance Slide Valve Co., The, Jersey Shore, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

### 1982 VALVES—Balance Slide—

American Balance Slide Valve Co., The, Jersey Shore, Pa.  
Hammett, M. C., Troy, N. Y.  
KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.  
Locomotive Appliance Co., Chicago, Ill.

### 1983 VALVES—Blow-off—

Best, Fox & Co., Pittsburg, Pa.  
Crane Co., 10 N. Jefferson St., Chicago, Ill.  
Crosby Steam Gage and Valve Co., Boston, Mass.  
Homestead Valve Manufacturing Co., 107 Wood St., Pittsburg.  
KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.  
Lunkenheimer Co., Cincinnati, Ohio.  
Watson & McDaniel, 144 N. 7th St., Philadelphia, Pa.

### 1984 VALVES—Brass—

Bay State Metal Works, Cambridgeport, Mass.  
Crane Co., 10 N. Jefferson St., Chicago, Ill.  
Crosby Steam Gage and Valve Co., Boston, Mass.  
Davis Co., The John, Chicago, Ill.  
Fairbanks, Morse & Co., Chicago, Ill.  
Jarecki Manufacturing Co., Erie, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Lunkenheimer Co., Cincinnati, Ohio.  
Mansfield Manufacturing Co. (Ltd.), Pittsburg, Pa.  
McGown Co., John H., Cincinnati, Ohio.  
Springfield Brass Co., Springfield, Ohio.

### 1985 VALVES—Check—

Ashton Valve Co., Boston, Mass.  
Bay State Metal Works, Cambridgeport, Mass.  
Belknap Manufacturing Co., Bridgeport, Conn.  
Best, Fox & Co., Pittsburg, Pa.  
Cahill, Swift & Co., St. Louis, Mo.  
Consolidated Safety Valve Co., Bridgeport, Conn.  
Crane Co., 10 N. Jefferson St., Chicago, Ill.  
Crosby Steam Gage and Valve Co., Boston, Mass.  
Davis Co., The John, Chicago, Ill.  
Fullmer & Co., A. J., Camden, N. J.  
Hayden & Derby Mfg. Co., The, 85 Liberty St., New York.  
Jenkins Bros., 71 John St., New York.

1985 VALVES—Check—Continued.

Kendrick Valve and Washer Co., Syracuse, N. Y.  
 KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.  
 Locke Regulator Co., Salem, Mass.  
 Ludlow Valve Manufacturing Co., Troy, N. Y.  
 Lunkenheimer Co., Cincinnati, Ohio.  
 McDonald & Morrison Manufacturing Co., Dubuque, Ia.  
 Michigan Brass and Iron Works, Detroit, Mich.  
 Poage, John N., Cincinnati, Ohio.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Watson-Stillman Co., 204 E. 43d St., New York.  
 Worthington Pumping Engine Co., 120 Liberty St., New York.

1986 VALVES—Cross—

Belknap Manufacturing Co., Bridgeport, Conn.  
 Chapman Valve Manufacturing Co., Boston, Mass.  
 Davis Co., The John, Chicago, Ill.  
 Jenkins Bros., 71 John St., New York.  
 KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.  
 Lunkenheimer Co., Cincinnati, Ohio.

1987 VALVES—Foot—

Coffin Valve Co., Neponset, Mass.  
 Crane Co., 10 N. Jefferson St., Chicago, Ill.  
 Davis Co., The John, Chicago, Ill.  
 KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.  
 Lee Injector Manufacturing Co., Detroit, Mich.

A1987 VALVE—Float—

U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad.  
 page A 2.

1988 VALVES—Gate—

Davis Co., The John, Cincinnati, Ohio.  
 KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.  
 Lunkenheimer Co., Cincinnati, Ohio.  
 Poage, John N., Cincinnati, Ohio.  
 Vincent Valve Co., Sandusky, Ohio.

1989 VALVES—Globe—

Albany Steam Trap Co., Albany, N. Y.  
 Chapman Valve Manufacturing Co., Indian Orchard, Mass.  
 Crane Co., 10 N. Jefferson St., Chicago, Ill.  
 Crosby Steam Gage and Valve Co., Boston, Mass.  
 Davis Co., The John, Chicago, Ill.  
 Detroit Lubricator Co., Detroit, Mich.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Hancock Inspirator Co., Boston, Mass.  
 Kelly & Jones Co., Pittsburg, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lunkenheimer Co., Cincinnati, Ohio.  
 Monarch Governor and Machine Co., Indianapolis, Ind.  
 Powell Co., William, Cincinnati, Ohio.  
 Pratt & Cady Co., Hartford, Conn.  
 Stephens Manufacturing Co., Roe, Detroit, Mich.

**1990 VALVES—Pneumatic—**

Garry Iron and Steel Roofing Co., Cleveland, Ohio.

KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.

**1991 VALVES—Portable Engine—**

American Steam Gauge Co., Boston, Mass.

Crosby Steam Gauge Co., Oliver St., Boston, Mass.

KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.

**1992 VALVES—Pressure Regulating—**

Davis Co., The John, 51 Michigan St., Chicago, Ill.

KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.

**1993 VALVES—Reducing—**

Belfield & Co., Ill., 435 N. Broad St., Philadelphia, Pa.

Chaplin-Fulton Manufacturing Co. (Inc.), Pittsburg, Pa.

Davis & Co., George M., Chicago, Ill.

Davis Co., The John, 51 Michigan St., Chicago, Ill.

Fairbanks, Morse & Co., Chicago, Ill.

Fisher Governor Co., Marshalltown, Ia.

KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.

Mason Regulator Co., Boston, Mass.

Mueller Manufacturing Co., H., Decatur, Ill.

Ross Valve Co., Troy, N. Y.

Watson-Stillman Co., 204 E. 43d St., New York.

**1994 VALVES—Relief—**

Ashton Valve Co., Boston, Mass.

Best, Fox & Co., Pittsburg, Pa.

Davis Co., The John, Chicago, Ill.

Fairbanks, Morse & Co., Chicago, Ill.

Hammitt, M. C., Troy, N. Y.

KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.

Loneragan & Co., J. E., 211 Race St., Philadelphia, Pa.

Lunkenheimer Co., Cincinnati, Ohio.

**1995 VALVES—Rubber—**

Boston Belting Co., Boston, Mass.

Goodrich Co., B. F., Akron, Ohio.

**1996 VALVES—Safety—**

American Steam Gauge Co., 36 Chardon St., Boston, Mass.

Ashcroft Manufacturing Co., 85 Liberty St., New York.

Ashton Valve Co., 271 Franklin St., Boston, Mass.

Belknap Manufacturing Co., Bridgeport, Conn.

Best, Fox & Co., Pittsburg, Pa.

Coale Muffler and Safety Valve Co., Baltimore, Md.

Consolidated Safety Valve Co., Bridgeport, Conn.

Crane Co., 10 N. Jefferson St., Chicago, Ill.

Crosby Steam Gauge and Valve Co., Oliver St., Boston, Mass.

Dickson Manufacturing Co., Scranton, Pa.

KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.

Lunkenheimer Co., Cincinnati, Ohio.

McGowan Co., John H., 58 Central Ave., Cincinnati, Ohio.

Stephens Manufacturing Co., Roe, Detroit, Mich.

1997 VALVES—Safety—Pop—

American Steam Gauge Co., 36 Chardon St., Boston, Mass.  
 Ashton Valve Co., 271 Franklin St., Boston, Mass.  
 Consolidated Safety Valve Co., Bridgeport, Conn.  
 Crane Co., 10 N. Jefferson St., Chicago, Ill.  
 Crosby Steam Gage and Valve Co., Oliver St., Boston, Mass.  
 Dickson Manufacturing Co., Scranton, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lunkenheimer Co., Cincinnati, Ohio.  
 Stephens Manufacturing Co., Roe, Detroit, Mich.  
 UTICA STEAM GAUGE CO., Frankfort, N. Y. See ad. page A 6.

1998 VALVES—Slide—

Hammett, M. C., Troy, N. Y.  
 KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.

1999 VALVES—Spring Seat—

Crosby Steam Gage and Valve Co., Boston, Mass.  
 KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.

2002 VALVES—Steam Pressure Reducing—

KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.  
 Lomergan & Co., J. E., 211 Race St., Philadelphia, Pa.

2003 VALVES—Tank—

American Steam Gauge Co., Boston, Mass.  
 Belknap Manufacturing Co., Bridgeport, Conn.  
 Boston Brass Co., Boston, Mass.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Flint & Walling Manufacturing Co., Kendallville, Ind.  
 Kennedy Valve Manufacturing Co., 75 John St., New York.  
 KINSEY CO., THE A. E., Cincinnati, Ohio. See ad. page A 4.  
 Poage, John N., Cincinnati, Ohio.  
 U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad.  
 page A 2.  
 Wolf Co., Fred W., 139 Rees St., Chicago, Ill.

2004 VALVES—Throttle—

Best, Fox & Co., Pittsburg, Pa.  
 Crosby Steam Gage and Valve Co., Oliver St., Boston, Mass.  
 Detroit Lubricator Co., Detroit, Mich.  
 Dickson Manufacturing Co., Scranton, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lunkenheimer Co., Cincinnati, Ohio.  
 MICHIGAN LUBRICATOR CO., Detroit, Mich. See ad. page A 1.  
 Monarch Governor and Machine Co., Indianapolis, Ind.

A2004 VALVES—Train Line—

Sullivan, J. J., 1137 Seventh St., Louisville, Ky.

2005 VALVES—Volute—Baker Heater—

American Steam Gauge Co., Boston, Mass.

200 VALVE YIPPER-GRIP—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Otto Gas Engine Works, The, Philadelphia, Pa.  
 U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad.  
 page A 2.

205 VALVES, Water Engine—

Anglo Valve Co., 271 Franklin St., Boston, Mass.  
 Conn. Valve & Safety Valve Co., Bridgeport, Conn.  
 Crosby North Valve and Valve Co., Oliver St., Boston, Mass.  
 Holmes North Pump Works, Warren, Mass.  
 Shaw, T. 305 E. 12th Ave., Philadelphia, Pa.

206 VALVE BALANCES, S. S.—

Anglo Valve & Safety Valve Co., Jersey Shore, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

210 VALVE FIXTURES—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Otto Gas Engine Works, The, Philadelphia, Pa.  
 U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad.  
 page A 2.

210 VALVE FIXTURES—Tack—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Poage, John N., Cincinnati, Ohio.  
 U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad.  
 page A 2.

211 VALVE GEARS—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Wolf Valve Gear Co., Minneapolis, Minn.

212 VALVE MOVEMENT—Allfree—

Locomotive Appliance Co., 1504 Fisher Bldg., Chicago, Ill.

213 VALVE SEATS—

Underwood & Co., H. B., 1025 Hamilton St., Philadelphia, Pa.

214 VARNISH—

Acme White Lead and Color Co., Detroit, Mich.  
 Anglo-American Varnish Co., 53 Johnson St., Newark, N. J.  
 Atlantic Drier and Varnish Co., 710 Drexel Bldg., Philadelphia.  
 Babcock & Co., John, 104 Water St., Boston, Mass.  
 Barrett Manufacturing Co., 290 Broadway, New York.  
 Berry Bros. (Ltd.), Detroit, Mich.  
 Beckwith-Chandler Co., 71 Broadway, New York.  
 Billings, Taylor & Co., Cleveland, Ohio.  
 Bridgeport Wood Finishing Co., New Milford, Conn.  
 Brown-Lilly Co., Indianapolis, Ind.  
 Buckeye Paint and Varnish Co., The, Toledo, Ohio.  
 Carlisle Manufacturing Co., South Bend, Ind.  
 Chicago Wood Finishing Co., 259 Elston Ave., Chicago, Ill.  
 Detroit White Lead and Color Works, Detroit, Mich.  
 Devoe & Reynolds Co., F. W., New York and Chicago.  
 Glidden Varnish Co., Cleveland, Ohio.



2014 VARNISH—Continued.

Gregg Varnish Co., St. Louis, Mo.  
 Hampden Paint and Chemical Co., Springfield, Mass.  
 Henter, E. L., San Francisco, Cal.  
 Hoffman Varnish Manufacturing Co., Louis G., St. Louis, Mo.  
 Longman & Martinez, 207 Pearl St., New York.  
 Lowe Bros. Co., Dayton, Ohio.  
 Minett Varnish Co., 1210 Ridge Ave., Philadelphia, Pa.  
 Mound City Paint and Color Co., St. Louis, Mo.  
 Old Kentucky Varnish Works, Louisville, Ky.  
 Parrott Varnish Co., Bridgeport, Conn.  
 Queen City Varnish Co., Cincinnati, Ohio.  
 Sherwin-Williams Co., Cleveland, Ohio.  
 Shoemaker & Co., Robert, 201 N. 4th St., Philadelphia, Pa.  
 Standard Varnish Works, 29 Broadway, New York.  
 Thresher & Co., Dayton, Ohio.  
 Ullman Co., Sigmund, 446 E. 146th St., New York.  
 U. S. Varnish Co., Cincinnati, Ohio.  
 Valentine & Co., 57 Broadway, New York.  
 Wood & Shephard Varnish Co., 35 Wythe Ave., Brooklyn, N. Y.

2015 VARNISH—Asphalt—

Acme White Lead and Color Works, Detroit, Mich.  
 Carey Manufacturing Co., The Philip, 415 E. Pearl St., Cincinnati.  
 Watson Company, H. F., Erie, Pa.

2016 VARNISH—Stack Black—

Acme White Lead and Color Works, Detroit, Mich.  
 Walker Chemical Works, Harrison, N. J.

2017 VARNISH REMOVER—

Acme White Lead and Color Works, Detroit, Mich.  
 Aquart, A. D., 1217 Chemical Building, St. Louis, Mo.  
 Bridgeport Wood Finishing Co., New Milford, Conn.

2018 VAULTS—Bank—

Barnes Safe & Lock Co., Pittsburg, Pa.  
 Cincinnati Safe & Lock Co., Elm St., Cincinnati, Ohio.  
 Detroit Safe Co., Detroit, Mich.  
 Globe Iron Works, 35 Indiana St., Chicago, Ill.  
 Hall's Safe and Lock Works, 183 W. Pearl St., Cincinnati, Ohio.  
 Herring-Hall-Marvin Co., 54 Bleeker St., New York.  
 Macneale and Urban Co., Hamilton, Ohio.  
 Mosler Safe Co., Hamilton, Ohio.  
 National Safe and Lock Co., Cleveland, Ohio.  
 Victor Safe and Lock Co., Broadway and 9th Sts., Cincinnati.

2019 VELOCIPEDES—Railway—

Buda Foundry and Manufacturing Co., Harvey, Ill.  
 Fairbanks, Morse and Co., Chicago, Ill.  
 Kalamazoo Railroad Velocipede and Car Co., Kalamazoo, Mich.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Roberts Car and Wheel Co., The, Three Rivers, Mich.  
 Sheffield Car Co., Three Rivers, Mich.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

2020 VELOCIPEDES—Railway, Electric—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Western Electric Co., Omaha, Neb.

2021 VELOCIPEDES—Railway—Motor—

Fairbanks, Morse and Co., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

2022 VENTILATORS—

Bay State Metal Works, Cambridgeport, Mass.  
Bergen Manufacturing Co., Canton, Ohio.  
Buffalo Forge Co., Buffalo, N. Y.  
Cornell, J. B. & J. M., 11th Ave. and W. 26th St., New York.  
Globe Ventilator Co., Troy, N. Y.  
Howard & Morse, 45 Fulton St., New York.  
Lithgow Manufacturing Co., Louisville, Ky.  
Lombard Iron Works and Supply Co., Augusta, Ga.  
N. O. Roofing and Metal Works, New Orleans, La.  
Peck-Williamson Heating and Ventilating Co., Cincinnati, Ohio.  
Preble Machine Works Co., 125 South Clinton St., Chicago, Ill.  
Pressed Steel Car Co., Pittsburg, Pa.  
Reading Hardware Co., Reading, Pa.  
Troy Stamping Co., Troy, N. Y.  
Van Noorden & Co., E., Boston, Mass.  
Wheeling Corrugating Co., Wheeling, W. Va.

2023 VENTILATORS—Car—

Creamer & Co., W. G., 96 John St., New York.  
Globe Ventilator Co., Troy N. Y.  
Meyers Manufacturing Co., Fred J., Hamilton, Ohio.  
Q. & C. Co., 700 W. U. Bldg., Chicago, Ill.  
Spear Stove and Heating Co., James, 1014 Market St., Philadelphia, Pa.  
Taylor Co., N. & G., Philadelphia, Pa.

2024 VESTIBULES—Car—

Gould Coupler Co., New York.  
(Buhoup) McCONWAY & TORLEY CO., THE, Pittsburg, Pa.  
See ad. opposite first page of list.

2025 VISES—

Adams Co., Dubuque, Ia.  
Athol Machine Co., Athol, Mass.  
Bonney Vise and Tool Works, 3015 Chestnut St., Philadelphia, Pa.  
Bostwick-Braun Co., The, Toledo, Ohio.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Crerar, Adams & Co., Chicago, Ill.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Gould & Eberhardt, Newark, N. J.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hollands Manufacturing Co., Erie, Pa.  
Howard Iron Works, Buffalo, N. Y.  
Hunt Co., C. W., 45 Broadway, New York.

## 2025 VISES—Continued.

Illinois Iron and Bolt Co., Carpentersville, Ill.  
James & Co. (Inc.), Chattanooga, Tenn.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Linley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Prentiss Vise Co., 44 Barclay St., New York.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 2026 VISES—Bench—

Armstrong Manufacturing Co., Bridgeport, Conn.  
Athol Machine Co., Athol, Mass.  
Billings & Spencer Co., Hartford, Conn.  
Fulton Iron and Engine Works, Detroit, Mich.  
Howard Iron Works, Buffalo, N. Y.  
Joyce-Cridland Co., Dayton, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Pedrick & Ayer Co., 1001 Hamilton St., Philadelphia, Pa.  
Smith Machine Co., H. B., Smithville, N. J.  
Stearns & Co., E. C., Syracuse, N. Y.  
Van Wagoner & Williams Hardware Co., 14 Warren St., New York.

## 2027 VISES—Blacksmiths'—

Armstrong Manufacturing Co., Bridgeport, Conn.  
Howard Iron Works, Buffalo, N. Y.  
Iron City Tool Works (Ltd.), Pittsburg, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Prentiss Vise Co., 44 Barclay St., New York.  
Scully Steel and Iron Co., 130 Fulton St., Chicago, Ill.  
Van Wagoner & Williams Hardware Co., 14 Warren St., New York.

## 2028 VISES—Combination Pipe and Bench—

Bignall & Keeler Manufacturing Co., Edwardsville, Ill.

## 2029 VISES—Machinists'—

Ayers Machine Co., Salem, N. J.  
Illinois Iron and Bolt Co., Carpentersville, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Vanderbeck Tool Works, Hartford, Conn.  
Van Wagoner & Williams Hardware Co., 14 Warren St., New York.

## 2030 VISES—Pipe—

Armstrong Manufacturing Co., Bridgeport, Conn.  
Clark Bros., Belmont, N. Y.  
Jarecki Manufacturing Co., Erie, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Reed Manufacturing Co., Erie, Pa.  
Walworth Manufacturing Co., Boston, Mass.

**2031 WAGONS—Dump—**

Austin Manufacturing Co. F. C., Harvey, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Western Wheeled Scraper Co., Aurora, Ill.

**2032 WAGONS—Express and Baggage—**

Abbot-Downing Co., Concord, N. H.  
Belknap Wagon Co., Grand Rapids, Mich.  
Benicia Agricultural Works, Benicia, Cal.  
Fairbanks, Morse & Co., Chicago, Ill.  
Fenton & Dunn, Holyoke, Mass.  
Fish Bros. Wagon Co., Racine, Wis.  
Hoover & Son, G. W., York, Pa.  
Keystone Wagon Co., Reading, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Milburn Wagon Co., Toledo, Ohio.  
Mitchell & Lewis Co. (Ltd.), Racine, Wis.  
Racine Wagon and Carriage Co., Racine, Wis.  
Roberts Car and Wheel Co., Three Rivers, Mich.  
Thayer & Co., H. N., Erie, Pa.  
York Carriage Co., York, Pa.

**2033 WASHERS—**

American Bolt Co., Lowell, Mass.  
American Washer and Manufacturing Co., Chicago, Ill.  
Anderson Iron and Bolt Co., Anderson, Ind.  
Avery Stamping Co., Coe and Lake Sts., Cleveland, Ohio.  
Bostwick-Braun Co., The, Toledo, Ohio.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Columbus Bolt Works, Columbus, Ohio.  
Continental Bolt and Iron Works, 36 N. Franklin St., Chicago, Ill.  
Crerar, Adams & Co., Chicago, Ill.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
Hunt Co., C. W., 45 Broadway, New York.  
James & Co. (Inc.), Chattanooga, Tenn.  
Lake Erie Iron Co., Cleveland, Ohio.  
Lebanon Rolling Mill Co., Lebanon, Pa.  
Lindsey & McCutcheon, Pittsburg, Pa.  
Lindley Supply Co., Ezra H., St. Louis, Mo.  
Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
Milton Manufacturing Co., Milton, Pa.  
National Bolt, Nut and Rivet Works, Reading, Pa.  
National Lock Washer Co., Newark, N. J.  
New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
Pennsylvania Bolt and Nut Co., Lebanon, Pa.  
Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
Sherburne & Co., 53 Oliver St., Boston, Mass.  
Tudor Iron Works, 415 Locust St., St. Louis, Mo.  
Upson Nut Co., Unionville, Conn.  
Wheeling Hinge Co., Wheeling, W. Va.  
ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

- 2034 WASHERS—Air Brake—  
 Boston Belting Co., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New Jersey Car Spring and Rubber Co., Jersey City, N. J.
- 2035 WASHERS—Asbestos—  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Leather and Brass Manufacturing Co., Seneca, Falls, N. Y.
- 2036 WASHERS—Felt—  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Leather and Brass Manufacturing Co., Seneca, Falls, N. Y.
- 2037 WASHERS—Gauge Glass—  
 Diamond Rubber Co., The, Akron, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 2038 WASHERS—Hose—  
 Boston Belting Co., 256 Devonshire St., Boston, Mass.  
 Gutta Percha and Rubber Mfg. Co., 35 Warren St., New York.  
 Hathaway Hose Washer Co., Syracuse, N. Y.  
 Home Rubber Co., Trenton, N. J.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Rockford Neck Yoke Works, Rockford, Ill.  
 Trenton Rubber Co., Trenton, N. J.
- 2039 WASHERS—Leather—  
 Clark Co., W. J., Salem, Ohio.  
 Darling Pump and Manufacturing Co., Williamsport, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Leather and Brass Manufacturing Co., Seneca, Falls, N. Y.  
 Marston & Co., I. G., Boston, Mass.  
 McKinnon Dash Co., Buffalo, N. Y.  
 Raymond Manufacturing Co. (Ltd.), Corry, Pa.  
 Rockford Neck Yoke Works, Rockford, Ill.
- 2040 WASHERS—Lubricator—  
 Diamond Rubber Co., The, Akron, Ohio.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.
- 2041 WASHERS—Phosphor Bronze—  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Phosphor Bronze Smelting Co. (Ltd.), 2200 Washington Ave.,  
 Philadelphia, Pa.
- 2042 WASHERS—Rawhide—  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New Process Raw Hide Co., Syracuse, N. Y.
- 2043 WASHERS—Steel—  
 Avery Stamping Co., Cleveland, Ohio.  
 Columbus Bolt Works, Columbus, Ohio.  
 Humphrey, H. W., Unionville, Conn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lebanon Rolling Mill Co., Lebanon, Pa.  
 National Bolt, Nut & Rivet Works, Reading, Pa.  
 Upson Nut Co., Unionville, Conn.

2044 WASHERS—Vulcabeston—

Johns Manufacturing Co., H. W., 100 William St., New York.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

2045 WASHERS—Vulcanized Fibre—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Vulcanized Fibre Co., Wilmington, Del.

2046 WASTE—Cotton—

Barton & Cookston, Fitchburg, Mass.  
Blakeley & Son, John, 1089 Germantown Ave., Philadelphia, Pa.  
Briggs & Co., H. A., Pawtucket, R. I.  
Hazy Waste Works, J. M., Philadelphia, Pa.  
Joseph & Bros., Joseph, Cincinnati, Ohio.  
Lees, W. Sherman, 52 Leonard St., New York.  
Leschen & Sons Rope Co., A., St. Louis, Mo.  
Lillie & Co., Dexter P., Indian Orchard, Mass.  
Livermore Foundry and Machine Co., Memphis, Tenn.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Marletta Paper Manufacturing Co., Marletta, Ga.  
Massasoit Manufacturing Co., 56 Leonard St., New York.  
Olmstead & Tuttle Co., Chicopee, Mass.  
Riverside Mills, Augusta, Ga.  
Southern Waste Works (Ltd.), 922 S. 16th St., Philadelphia, Pa.  
Sykes, David, East Dauphin and Amber Sts., Philadelphia, Pa.

2047 WASTE—Wool—

Blakeley & Son, John, 1089 Germantown Ave., Philadelphia, Pa.  
Hazy Waste Works, J. M., Philadelphia, Pa.  
Johnston, William J., 41 Letitia, Philadelphia, Pa.  
Joseph & Bros., Joseph, Cincinnati, Ohio.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Leschen & Sons Rope Co., A., St. Louis, Mo.  
Lillie & Co., Dexter P., Indian Orchard, Mass.  
Livermore Foundry and Machine Co., Memphis, Tenn.  
Olmstead & Tuttle Co., Chicopee, Mass.  
Riverside Mills, Augusta, Ga.  
Southern Waste Works (Ltd.), 922 S. 16th St., Philadelphia, Pa.  
Sykes, David, East Dauphin and Amber Sts., Philadelphia, Pa.

2048 WATCHMEN'S STATION BOXES—

Howard Watch and Clock Co., E., Boston, Mass.  
New Haven Clock Co., New Haven, Conn.

2049 WATER CRANES—Railroad—

Fairbanks, Morse & Co., Franklin and Monroe Sts., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Laidlaw-Dunn-Gordon Co., Cincinnati, Ohio.  
Poage, John N., Cincinnati, Ohio.  
Sheffield Car Co., Three Rivers, Mich.  
U. S. WIND ENGINE AND PUMP CO., Batavia, Ill. See ad. page A 2.

2050 WATER COLUMN MACHINES—

Davis Co., The John, 51 Michigan St., Chicago, Ill.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

**2051 WATER TOWERS—**

Baker Manufacturing Co., Evansville, Wis.  
Challenge Wind Mill and Feed Mill Co., Batavia, Ill.  
Freeman and Sons Manufacturing Co., S., Racine, Wis.  
Guette-Herzog Manufacturing Co., Minneapolis, Minn.  
Lombard Iron Works and Supply Co., Augusta, Ga.  
May Bros., Galesburg, Ill.  
Otto Gas Engine Works, The, Philadelphia, Pa.  
Pittsburg Bridge Co., Pittsburg, Pa.  
Struthers, Wells & Co., Warren, Pa.

**2052 WAX—Sealing—**

Bowdlear & Co., W. H., Boston, Mass.  
Brooks & Co., Cleveland, Ohio.  
Burford, Wm. B., Indianapolis, Ind.  
Chamberlin & Johnson, Allegheny, Pa.  
Continental Manufacturing Co., 330 N. 3d St., Philadelphia, Pa.  
Dennison Manufacturing Co., Boston, Mass.  
England Bros., Zanesville, Ohio.  
Franklin Manufacturing Co., Rochester, N. Y.  
Richmond & Backus Co., Detroit, Mich.  
Sanford Manufacturing Co., 219 Fulton St., Chicago, Ill.  
Wood Co., The George, 436 Atlantic Ave., Boston, Mass.  
Woodward & Tiernan Co., The, St. Louis, Mo.

**2053 WEATHER STRIPS—Metallic—**

Bosley Co., D. W., 210 Washington Boulevard, Chicago, Ill.  
Patent Metallic Weather Strip Co., 74 W. 23d St., New York.  
Roebuck, S., 172 Fulton St., New York.

**2054 WEATHER STRIPS—Rubber—**

Bosley Co., D. W., 210 Washington Boul., Chicago, Ill.  
Gage, John S., 27 Barclay St., New York.  
Goodyear Rubber Co., 787 Broadway, New York.  
Gutta Percha and Rubber Mfg. Co., 35 Warren St., New York.  
Harsha Manufacturing Co., L. R., 793 Carroll Ave., Chicago, Ill.  
Mechanical Rubber Co., 22 Murray St., New York.  
New Jersey Car Spring and Rubber Co., Jersey City, N. J.  
Patent Metallic Weather Strip Co., 74 W. 23d St., New York.  
Peleger Manufacturing Co., 985 W. Spaulding Ave., Chicago, Ill.  
Protective Ventilator Co., 153 Fulton St., New York.  
Roebuck, S., 172 Fulton St., New York.  
United Rubber Co., Trenton, N. J.  
Valentine & Son, W. T., Albany, N. Y.

**2055 WEDGES—Journal Bearing—**

National Railway Specialty Co., Old Colony Bldg., Chicago, Ill.

**2056 WEED CUTTERS—**

Sheffield Car Co., Three Rivers, Mich.

**2057 WEIGHTS—Paper—**

Arlington Manufacturing Co., 475 Broadway, New York.  
Bradley & Hubbard Manufacturing Co., Meriden, Conn.  
Enterprise Manufacturing Co., Akron, Ohio.

2057 WEIGHTS—Paper—Continued.

Huebel & Manger, 288 Granger St., Brooklyn, N. Y.  
 Judd & Co., H. L., 87 Chambers St., New York.  
 Low Art Tile Co., Chelsea, Mass.  
 Meriden Britannia Co., Meriden, Conn.  
 Philadelphia Novelty Manufacturing Co., N. 13th and Noble Sts.,  
 Philadelphia, Pa.  
 Tatum Co., Samuel C., Cincinnati, Ohio.

2058 WHEELS—Brake—

Dayton Malleable Iron Co., The, Dayton, Ohio.

2000 WHEELS—Car—Chilled Cast—

American Car and Foundry Co., St. Louis, Mo.  
 Baltimore Car Wheel Co., Baltimore, Md.  
 Barney & Smith Car Co., Dayton, Ohio.  
 Bass Foundry and Machine Works, Fort Wayne, Ind.  
 Bloomsburg Car Co., Bloomsburg, Pa.  
 Bowler & Co., Cleveland, Ohio.  
 Brill Co., J. G., 62d St. and Woodland Ave., Philadelphia, Pa.  
 Brown Car Wheel Works, Buffalo, N. Y.  
 Bullock Manufacturing Co., M. C., 1170 W. Lake St., Chicago, Ill.  
 Butterworth & Lowe, Grand Rapids, Mich.  
 Cayuta Wheel and Foundry Co., Sayre, Pa.  
 Chester Steel Castings Co., 407 Library St., Philadelphia, Pa.  
 Chrome Steel Works, Kent Ave. and Hooper St., Brooklyn, N. Y.  
 Cleveland Wheel and Foundry Co., Cleveland, Ohio.  
 Connellsville Machine and Car Co., Connellsville, Pa.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Ford & Kimball, Concord, N. H.  
 Fulton Foundry Co., Cleveland, Ohio.  
 Gates Iron Works, 650 Elston Ave., Chicago, Ill.  
 Green's Car Wheel Manufacturing Co., St. Louis, Mo.  
 Griffin Wheel Co., 138 Jackson Boul., Chicago, Ill.  
 Harlan & Hollingsworth Co., Wilmington, Del.  
 Harman & Hassert, Bloomsburg, Pa.  
 Haskell & Barker Car Co., Michigan City, Ind.  
 Hockensmith Wheel and Mine Car Co., Irwin, Pa.  
 Jackson & Woodin Manufacturing Co., Berwick, Pa.  
 Laconia Car Co. Works, Laconia, N. H.  
 Lake Shore Foundry Co., Cleveland, Ohio.  
 Lima Locomotive and Machine Co., Lima, Ohio.  
 Litchfield Car Works Litchfield, Ill.  
 Lobdell Car Wheel Co., Wilmington, Del.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 McKee, Fuller & Co., Catasauqua, Pa.  
 Midvale Steel Co., Nicetown, Philadelphia, Pa.  
 Mowry Car Wheel Works, Cincinnati, Ohio.  
 Nelsonville Foundry and Machine Works, Nelsonville, Ohio.  
 New York Car Wheel Works, Buffalo, N. Y.  
 Paige Car Wheel Co., Cleveland, Ohio.  
 Peckham Truck Co., 26 Cortlandt St., New York.  
 Pennsylvania Car Wheel Co., Pittsburg, Pa.  
 Ramapo Wheel and Foundry Co., Ramapo, N. Y.  
 Risdon Iron and Locomotive Works, San Francisco, Cal.



## 2060 WHEELS—Car—Chilled Cast—Continued.

Rochester Car Wheel Works, Rochester, N. Y.  
St. Albans Foundry Co., St. Albans, Vt.  
St. Louis Car Wheel Co., St. Louis, Mo.  
St. Paul Foundry Co., St. Paul, Minn.  
Standard Steel Works, Harrison Bldg., Philadelphia, Pa.  
Steiger & Kerr, San Francisco, Cal.  
Taylor Iron and Steel Co., High Bridge, N. J.  
Terre Haute Car and Manufacturing Co., Terre, Haute, Ind.  
Tredegar Co., Richmond, Va.  
Union Foundry and Pullman Car Wheel Works, Pullman, Ill.  
Wason Manufacturing Co., Springfield, Mass.  
Watt Mining Car Wheel Co., Barnesville, Ohio.  
Wells & French Co., 279 Dearborn St., Chicago, Ill.  
Whitney Car Wheel Works, 901 Montgomery Ave., Philadelphia.

## 2061 WHEELS—Car—Steel—

Prosser & Son, Thomas, 15 Gold St., New York.

## 2062 WHEELS—Car—Steel Tired—

Baltimore Car Wheel Co., Baltimore, Md.  
Brooks Locomotive Works, Dunkirk, N. Y.  
Chester Steel Castings Co., 407 Library St., Philadelphia, Pa.  
Chrome Steel Works, Kent Ave. and Hooper St., Brooklyn, N. Y.  
Green's Car Wheel Manufacturing Co., St. Louis, Mo.  
Laconia Car Co. Works, Laconia, N. H.  
Prosser & Son, Thomas, 15 Gold St., New York.  
Standard Steel Works, Harrison Bldg., Philadelphia, Pa.  
Steel Tired Wheel Co., 115 Broadway, New York.  
Taylor Iron and Steel Co., High Bridge, N. J.  
Wason Manufacturing Co., Springfield, Mass.  
Whitney Car Wheel Works, 901 Montgomery Ave. Philadelphia.

## 2063 WHEELS—Carborundum—

Carborundum Co., Niagara Falls, N. Y.

## 2064 WHEELS—Corundum—

Abrasive Material Co., S. 72d and Upland Sts., Philadelphia, Pa.  
Best, L., 45 Vesey St., New York.  
Detroit Emery Wheel Co., Detroit, Mich.  
Hampden Corundum Wheel Co., Brightwood, Mass.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Norton Emery Wheel Co., Worcester, Mass.  
Standard Emery Wheel Co., Albany, N. Y.  
Strelinger Co., Charles A., 96 Bates St., Detroit, Mich.

## 2065 WHEELS—Driving—

Baltimore Car Wheel Co., Baltimore, Md.  
Bullock Manufacturing Co., M. C., 1170 Lake St., Chicago, Ill.  
Chester Steel Castings Co., 407 Library St., Philadelphia, Pa.  
Chrome Steel Works, Kent Ave. and Hooper St., Brooklyn, N. Y.  
Cleveland Wheel and Foundry Co., Cleveland, Ohio.  
Corliss Steam Engine Co., Providence, R. I.  
Dickson Manufacturing Co., Scranton, Pa.  
Fulton Foundry Co., Cleveland, Ohio.

- 2065 WHEELS—Driving—Continued.**  
 Lobdell Car Wheel Co., Wilmington, Del.  
 Ramapo Wheel and Foundry Co., Ramapo, N. Y.  
 Wason Manufacturing Co., Springfield, Mass.  
 Whitney Car Wheel Works, 901 Montgomery Ave., Philadelphia.
- 2066 WHEELS—Driving—Chilled Iron—**  
 McKee, Fuller & Co., Catasauqua, Pa.  
 New York Car Wheel Works, Buffalo, N. Y.  
 Portland Co., Portland, Me.  
 Whitney Car Wheel Works, 901 Montgomery Ave., Philadelphia.
- 2067 WHEELS—Driving—Steel Tired—**  
 Brooks Locomotive Works, Dunkirk, N. Y.  
 Otis Steel Co. (Ltd.), Cleveland, Ohio.  
 Taylor Iron and Steel Co., High Bridge, N. J.
- 2068 WHEELS—Emery—**  
 Abrasive Material Co., S. 72d and Upland St., Philadelphia, Pa.  
 Atkins & Co., E. C., Indianapolis, Ind.  
 Barry Saw and Supply Co., Indianapolis, Ind.  
 Best, L., 45 Vesey St., New York.  
 Detroit Emery Wheel Co., Detroit, Mich.  
 Hampden Corundum Wheel Co., Brightwood, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lehigh Valley Emery Wheel Works, Weissport, Pa.  
 Northampton Emery Wheel Co., 20 S. Canal St., Chicago, Ill.  
 Safety Emery Wheel Co., Springfield, Ohio.  
 Standard Emery Wheel Co., Albany, N. Y.
- 2069 WHEELS—Fly—**  
 Dickson Manufacturing Co., Scranton, Pa.  
 Filer & Stowell Co. (Ltd.), Milwaukee, Wis.  
 Jones & Laughlins (Ltd.), Pittsburg, Pa.  
 Link-Belt Machinery Co., Chicago, Ill.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.  
 Vulcan Iron Works, Wilkesbarre, Pa.
- 2070 WHEELS—Gear—**  
 Brown & Sharpe Manufacturing Co., Providence, R. I.  
 Chase Turbine Manufacturing Co., Orange, Mass.  
 Chester Steel Castings Co., 407 Library St., Philadelphia, Pa.  
 Fairmount Machine Co., 2106 Wood St., Philadelphia, Pa.  
 Great Western Manufacturing Co., Leavenworth, Kas.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Nordyke & Marmon Co., Indianapolis, Ind.  
 Philadelphia Gear Works, 624 Race St., Philadelphia, Pa.  
 Poole & Son Co., Robert, Baltimore, Md.  
 Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio.  
 Vulcan Iron Works, Wilkesbarre, Pa.
- 2071 WHEELS—Hand Car—**  
 American Car and Foundry Co., St. Louis, Mo.  
 Baugher, Kurtz & Stewart (Ltd.), York, Pa.  
 Brill Co., J. G., Philadelphia, Pa.  
 Buda Foundry and Manufacturing Co., Harvey, Ill.

**2071 WHEELS—Hand Car—Continued.**

Fairbanks, Morse & Co., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 New York Car Wheel Works, Buffalo, N. Y.  
 Peckham Truck Co., 26 Cortlandt St., New York.  
 Sheffield Car Co., Three Rivers, Mich.  
 Westoon-Mott Co., Utica, N. Y.  
 Whitney Car Wheel Works, 901 Montgomery Ave., Philadelphia.

**2072 WHEELS—Mine Car—**

American Car and Foundry Co., Chicago, Ill.  
 American Engineering Works, 204 Dearborn St., Chicago, Ill.  
 Baugher, Kurtz & Stewart (Ltd.), York, Pa.  
 Dickson Manufacturing Co., Scranton, Pa.  
 Fraser & Chalmers, 12th St., and Washtenaw Ave., Chicago, Ill.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lobdell Car Wheel Works, Wilmington, Del.  
 McKee, Fuller & Co., Catasauqua, Pa.  
 New York Car Wheel Works, Buffalo, N. Y.  
 Sheffield Car Co., Three Rivers, Mich.  
 Star Manufacturing Co., New Lexington, Ohio.  
 Taylor Iron and Steel Co., High Bridge, N. J.  
 Vulcan Iron Works, Wilkesbarre, Pa.  
 Whitney Car Wheel Works, 901 Montgomery Ave., Philadelphia.

**2073 WHEELS—Push Car—**

American Car and Foundry Co., St. Louis, Mo.  
 Baugher, Kurtz & Stewart (Ltd.), York, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lombard Iron Works and Supply Co., Augusta, Ga.  
 Sheffield Car Co., Three Rivers, Mich.  
 Whitney Car Wheel Works, 901 Montgomery Ave., Philadelphia.

**2074 WHEELS—Ratchet—**

Dickson Manufacturing Co., Scranton, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Poole & Son Co., Robert, Baltimore, Md.

**2075 WHEELS—Rope Transmission—**

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Poole & Son Co., Robert, Baltimore, Md.

**2076 WHEELS—Steel Tired—**

Prosser & Son, Thomas, 15 Gold St., New York.  
 Standard Steel Works, Philadelphia, Pa.  
 Steel Tired Wheel Co., 71 Broadway, New York.  
 Taylor Iron and Steel Co., High Bridge, N. J.  
 THOMPSON, C. A., 615 N. 4th St., St. Louis. See ad. page A 5.

**2077 WHEELS—Truck—Steel—**

Baltimore Car Wheel Co., Baltimore, Md.  
 Brown Car Wheel Works, Buffalo, N. Y.  
 Chickasaw Iron Works, Memphis, Tenn.  
 Cleveland Wheel and Foundry Co., Cleveland, Ohio.  
 Dickson Manufacturing Co., Scranton, Pa.

- 2077 WHEELS—Truck—Steel—Continued.  
 Jones & Laughlins (Ltd.), Pittsburg, Pa.  
 McKee, Fuller & Co., Catasauqua, Pa.  
 Niles & Scott Co., Laporte, Ind.  
 Steel Tired Wheel Co., 115 Broadway, New York.  
 Whitehurst & Co., R. W., Norfolk, Va.
- 2078 WHEELS—Ventilating Fan—  
 Buffalo Forge Co., Buffalo, N. Y.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 MacLeod & Clark, 457 E. Front St., Cincinnati, Ohio.
- 2079 WHEEL CENTERS—Car and Locomotive—  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Shickle, Harrison & Howard Iron Co., St. Louis, Mo.  
 Standard Steel Works, Harrison Bldg., Philadelphia, Pa.  
 Taylor Iron and Steel Co., High Bridge, N. J.
- 2081 WHISTLES—Chime—  
 Ashton Valve Co., The, 271 Franklin St., Boston, Mass.  
 Crosby Steam Gage and Valve Co., Oliver St., Boston, Mass.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lunkenheimer Co., Cincinnati, Ohio.
- 2082 WHISTLES—Pneumatic—  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Western Railway Equipment Co., St. Louis, Mo.
- 2083 WHISTLES—Steam—  
 American Steam Gauge Co., Boston, Mass.  
 Ashcroft Manufacturing Co., 85 Liberty St., New York.  
 Belknap Manufacturing Co., Bridgeport, Conn.  
 Crane Co., 10 N. Jefferson St., Chicago, Ill.  
 Crosby Steam Gage and Valve Co., Oliver St., Boston, Mass.  
 Dickson Manufacturing Co., Scranton, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lunkenheimer Co., Cincinnati, Ohio.  
 Powell Co., William, Cincinnati, Ohio.  
 Woodman Manufacturing and Supply Co., R., Boston, Mass.
- 2084 WICKS—Asbestos—  
 Johns Manufacturing Co., H. W., 100 William St., New York.  
 Keasbey & Mattison Manufacturing Co., Ambler, Pa.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Watson Co., H. F., Erie, Pa.
- 2085 WICKS—Braided Torch—  
 McClintock & Irvine, Allegheny, Pa.
- 2086 WICKS—Candle—  
 Darrow, A. R., East Lyme, Conn.  
 Fletcher Manufacturing Co., Providence, R. I.  
 Hooper & Sons, Wm., E. Baltimore, Md.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lees Manufacturing Co., Westport, Conn.  
 Sheldon, T., Central Village, Conn.

## 2087 WICKS—Lamp—

American Tubing and Webbing Co., Providence, R. I.  
 Ansonia O. and C. Co., Ansonia, Conn.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Fletcher Manufacturing Co., Providence, R. I.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Jersey Wick Co., Newark, N. J.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 2088 WINCHES—

American Hoist and Derrick Co., St. Paul, Minn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.

## 2089 WIND MILLS—

Appleton Manufacturing Co., Batavia, Ill.  
 Baker Manufacturing Co., Evansville, Wis.  
 Bean-Chamberlain Manufacturing Co., Hudson, Mich.  
 Corcoran, Andrew J., 11 John St., New York.  
 Duplex Manufacturing Co., South Superior, Wis.  
 Elgin Wind Power and Pump Co., Elgin, Ill.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Flint & Walling Manufacturing Co., Kendallville, Ind.  
 Hess, Snyder & Co., Massillon, Ohio.  
 Jackson Machine Works, Byron, San Francisco, Cal.  
 Keogh Manufacturing Co., San Francisco, Cal.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Mast, Foos & Co., Springfield, Ohio.  
 Smith & Pomeroy, Kalamazoo, Mich.  
 Stearns Manufacturing Co., Los Angeles, Cal.  
 Stover Manufacturing Co., Freeport, Ill.  
 UNITED STATES WIND ENGINE AND PUMP CO., Batavia,  
 Ill. See ad. page A 2.  
 Zimmerman Manufacturing Co., Auburn, Ind.

## 2090 WIRE—Annunciator—

American Electrical Works, Providence, R. I.  
 Ansonia Electric Co., Ansonia, Conn.

## 2091 WIRE—Barb—

AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill.  
 See ad. inside front cover.  
 Baaches & Co., Pittsburg, Pa.  
 California Wire Works, San Francisco, Cal.

## 2091-2094

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### 2091 WIRE—Barb—Continued.

Cambria Steel Co., Philadelphia, Pa.  
Cincinnati Barbed Wire Fence Co., Cincinnati, Ohio.  
Continental Wire Co., Olive St., St. Louis, Mo.  
Dillon-Griswold Wire Co., Sterling, Ill.  
Ellwood Manufacturing Co., Abram, De Kalb, Ill.  
Haish Manufacturing Co., De Kalb, Ill.  
Hartman Manufacturing Co., 277 Broadway, New York.  
Hazard Manufacturing Co., Wilkesbarre, Pa.  
Indiana Wire Fence Co., Crawfordsville, Ind.  
Jones National Fence Co., Columbus, Ohio.  
Lambert & Bishop, Joliet, Ill.  
Ludlow-Saylor Wire Co., 116 S. 4th St., St. Louis, Mo.  
New Haven Wire Manufacturing Co., New Haven, Conn.  
Northwestern Barb Wire Co., Sterling, Ill.  
Oliver Wire Co., Pittsburg, Pa.  
Over, Ewald, Indianapolis, Ind.  
Pittsburg Wire Co., Pittsburg, Pa.  
Roebbing's Sons Co., John A., 117 Liberty St., New York.  
St. Louis Wire and Iron Co., St. Louis, Mo.  
Sandwich Manufacturing Co., Sandwich, Ill.  
Washburn & Moen Manufacturing Co., Worcester, Mass.

### 2092 WIRE—Brass—

American Brass Co., Waterbury, Conn.  
Ansonia Brass and Copper Co., 19 Cliff St., New York.  
Bridgeport Brass Co., Bridgeport, Conn.  
Cary Spring Works, 240 W. 29th St., New York.  
De Witt Wire Cloth Co., 17 Warren St., New York.  
Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
McCluskey & Sons, H. & F., New Haven, Conn.  
Plume & Atwood Manufacturing Co., Waterbury, Conn.  
Scovill Manufacturing Co., Waterbury, Conn.  
Waterbury Brass Co., Waterbury, Conn.

### 2093 WIRE—Copper—

American Brass Co., Waterbury, Conn.  
American Signal Co., The, Guilford and Girard Aves., Baltimore.  
AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill. See ad. inside front cover.  
Cable Excelsior Wire Mfg. Co., Wm., 43 Fulton St., New York.  
Detroit Copper and Brass Rolling Mills, Detroit, Mich.  
Globe Rolling Mill Iron and Steel Co., Cincinnati, Ohio.  
Hall Signal Co., The, 44 Broad St., New York.  
Lewisohn Bros. (Inc.), 81 Fulton St., New York.  
Malin & Co., Cleveland, Ohio.  
Roebbing's Sons Co., John A., 117 Liberty St., New York.  
Rome Brass and Copper Co., Rome, N. Y.  
Wright & Colton Wire Cloth Co., Worcester, Mass.

### 2094 WIRE—Cotton-Covered Magnet—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. inside front cover.  
Ansonia Electric Co., Ansonia, Conn.

**2096 WIRE—Electric Light—**

**AMERICAN STEEL AND WIRE CO.**, Chicago, Ill. See ad.  
inside front cover.

American Electrical Works, Providence, R. I.  
Ansonia Brass and Copper Co., Ansonia, Conn.  
Fort Wayne Electrical Corporation, Fort Wayne, Ind.  
Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

**2097 WIRE—Fence—**

Adam, W. J., Joliet, Ill.  
**AMERICAN STEEL AND WIRE CO.**, The Rookery, Chicago,  
Ill. See ad. inside front cover.  
Barbee Wire & Iron Works, 44 Dearborn St., Chicago, Ill.  
Detroit Fence Co., Detroit, Mich.  
Ellwood Wire and Nail Co., De Kalb, Ill.  
Frost Wire Fence Co., The, Cleveland, Ohio.  
Gilbert & Bennett Manufacturing Co., 44 Cliff St., New York.  
Globe Rolling Mills Iron and Steel Co., Cincinnati, Ohio.  
H. P. Nail Co., Cleveland, Ohio.  
Hazard Manufacturing Co., Wilkesbarre, Pa.  
Kokomo Fence Machine Co., Kokomo, Ind.  
Jones National Fence Co., Columbus, Ohio.  
Lamb Fence Co., Adrian, Mich.  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
Page Woven Wire Fence Co., Adrian, Mich.  
Union Fence Co., De Kalb, Ill.  
Worcester Wire Co., Worcester, Mass.

**2098 WIRE—Galvanized Iron—**

**AMERICAN STEEL AND WIRE CO.**, The Rookery, Chicago,  
Ill. See ad. inside front cover.  
Oliver Wire Co., Pittsburg, Pa.  
Trenton Iron Co., Trenton, N. J.

**A2098 WIRE—Galvanized Strand—**

**AMERICAN STEEL AND WIRE CO.**, Chicago, Ill. See ad.  
inside front cover.

**2099 WIRE—Insulated—**

American Electrical Works, Providence, R. I.  
**AMERICAN STEEL AND WIRE CO.**, The Rookery, Chicago,  
Ill. See ad. inside front cover.  
Ansonia Brass and Copper Co., 19 Cliff St., New York.  
Hall Signal Co., 44 Broad St., New York.  
Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
New York Insulated Wire Co., 15 Cortlandt St., New York.  
Okonite Co. (Ltd.), The, 253 Broadway, New York.  
Simplex Electrical Co., 75 Cornhill St., Boston, Mass.  
Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

**2100 WIRE—Iron—**

**AMERICAN STEEL AND WIRE CO.**, The Rookery, Chicago,  
Ill. See ad. inside front cover.  
Gilbert & Bennett Manufacturing Co., 44 Cliff St., New York.  
Globe Rolling Mill Iron and Steel Co., Cincinnati, Ohio.

## 2100-2104

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### 2100 WIRE—Iron—Continued.

New Haven Wire Manufacturing Co., New Haven, Conn.  
Prouty Wire Co., Charlestown, Mass.  
Roebbling's Sons Co., John A., 117 Liberty St., New York.  
Trenton Iron Co., Trenton, N. J.  
Worcester Wire Co., Worcester, Mass.

### A2100 WIRE—Spiral Spring Colled—

Jones National Fence Co., Columbus, Ohio.

### 2101 WIRE—Steel—

AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill. See ad. inside front cover.  
Cary Spring Works, 240 W. 29th St., New York.  
Globe Rolling Mill Iron and Steel Co., Cincinnati, Ohio.  
Malin & Co., Cleveland, Ohio.  
Roebbling's Sons Co., John A., 117 Liberty St., New York.  
Shenango Valley Steel Co., New Castle, Pa.  
Trenton Iron Co., Trenton, N. J.  
Worcester Wire Co., Worcester, Mass.

### 2102 WIRE—Telegraph and Telephone—

AMERICAN STEEL AND WIRE CO., The Rookery, Chicago, Ill. See ad. inside front cover.  
Ansonia Brass and Copper Co., 19 Cliff St., New York.  
General Electric Co., Schenectady, N. Y.  
Hall Signal Co., The, 44 Broad St., New York.  
Hazard Manufacturing Co., Wilkesbarre, Pa.  
Holmes, Booth & Haydens (Inc.), Waterbury, Conn.  
Phosphor Bronze Smelting Co. (Ltd.), Washington Ave., Philadelphia, Pa.  
Western Electric Co., 242 S. Jefferson St., Chicago, Ill.

### A2102 WIRE—Trolley—See Wire, Copper—

### B2102 WIRE—Weather Proof—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad. inside front cover.

### 2103 WIRE ROPE FITTINGS—

Carlin's Sons, Thomas, Allegheny, Pa.  
Harvey, Henry H., Boston, Mass.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Leschen & Sons Rope Co., A., St. Louis, Mo.  
Wilcox, Crittenden & Co., Middletown, Conn.

### 2104 WOOD PRESERVATIVE—

American Wood Preserving Co., The, 806 Chestnut St., Philadelphia, Pa.  
Barschall Impregnating Co., 31 Nassau St., New York.  
Carbolineum Wood Preserving Co., 13 Park Row, New York.  
United States Wood Preserving Co., 71 Broadway, New York.  
Walker Chemical Works, Harrison, N. J.



## 2105 WRENCHES—

American Saw Co., Trenton, N. J.  
 Bemis & Call Hardware and Tool Co., Springfield, Mass.  
 Billings & Spencer Co., Hartford, Conn.  
 Bonney Vise and Tool Works, 3015 Chestnut St., Philadelphia, Pa.  
 Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Cincinnati Tool Co., Cincinnati, Ohio.  
 Clark Co., W. J., Salem, Ohio.  
 Cleveland Hardware Co., Cleveland, Ohio.  
 Corbin, P. & F., New Britain, Conn.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dayton Malleable Iron Co., Dayton, Ohio.  
 Dicke Tool Co., Downer's Grove, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Henn & Co., A. S., New Haven, Conn.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Keystone Drop Forge Co., 20th and Clearfield Sts., Philadelphia.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Lamson & Sessions Co., Cleveland, Ohio.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 Morse Twist Drill and Machine Co., New Bedford, Mass.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Peck, Stow & Wilcox Co., Southington, Conn.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Pratt & Whitney Co., Hartford, Conn.  
 Racine General Manufacturing Co., Racine, Wis.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Standard Tool Co., Cleveland, Ohio.  
 Tatum Co., Samuel C., Cincinnati, Ohio.  
 Whitman & Barnes Manufacturing Co., Akron, Ohio.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 2106 WRENCHES—Box Head—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Williams & Co., J. H., Brooklyn, N. Y.

## 2107 WRENCHES—Car—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Williams & Co., J. H., Brooklyn, N. Y.

## 2108 WRENCHES—Double Head—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Williams & Co., J. H., Brooklyn, N. Y.

## 2109 WRENCHES—Engineers'—

Buck Manufacturing Co., M. M., St. Louis, Mo.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Williams & Co., J. H., Brooklyn, N. Y.

2110 WRENCHES—Machine—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Williams & Co., J. H., Brooklyn, N. Y.

2111 WRENCHES—Pipe—

Armstrong Manufacturing Co., Bridgeport, Conn.  
ATLAS PIPE WRENCH CO., 121 Liberty St., New York.  
Bemis & Call Hardware and Tool Co., Springfield, Mass.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Hollands Manufacturing Co., Erie, Pa.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Nicholson & Co., W. H., Wilkesbarre, Pa.  
Robbins, Gamwell & Co., Pittsfield, Mass.  
Tower & Lyon, 95 Chambers St., New York.  
Union Hardware Co., Torrington, Conn.  
Vaughan & Bushnell Mfg. Co., 877 Carroll Ave., Chicago, Ill.  
Wakefield, J. E., 80 Exchange St., Worcester, Mass.  
Williams & Co., J. H., Brooklyn, N. Y.

2112 WRENCHES—Pipe—Chain—

Hilts' Wrench and Manufacturing Co., Richford, N. Y.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Williams & Co., J. H., Brooklyn, N. Y.

2113 WRENCHES—S—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Williams & Co., J. H., Brooklyn, N. Y.

2114 WRENCHES—Socket—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Williams & Co., J. H., Brooklyn, N. Y.

2115 WRENCHES—Tap—

Armstrong Manufacturing Co., Bridgeport, Conn.  
Billings & Spencer Co., Hartford, Conn.  
Butterfield & Co., Derby Line, Vt.  
Carpenter Tap and Die Co., J. M., Pawtucket, R. I.  
KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
Morse Twist Drill and Machine Co., New Bedford, Mass.  
Pratt & Whitney Co., Hartford, Conn.  
Standard Tool Co., Cleveland, Ohio.

2116 WRENCHES—Track—

Atha Tool Co., Newark, N. J.  
Bostwick-Braun Co., The, Toledo, Ohio.  
Buck Manufacturing Co., M. M., St. Louis, Mo.  
Cahill, Swift & Co., St. Louis, Mo.  
Chester Steel Castings Co., 407 Library St., Philadelphia, Pa.  
Crerar, Adams & Co., Chicago, Ill.  
Dayton Malleable Iron Co., Dayton, Ohio.  
DETROIT STEEL AND SPRING CO., Detroit, Mich. See ad.  
page A 8.  
Doble Co., Abner, San Francisco, Cal.  
Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
Haines, Jones & Cadbury Co., Philadelphia, Pa.  
Hibbard, Spencer, Bartlett & Co., Chicago, Ill.

## 2116 WRENCHES—Track—Continued.

Hunt Co., C. W., 45 Broadway, New York.  
 Iron City Tool Works (Ltd.), Pittsburg, Pa.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Mo.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 Williams & Co., J. H., 9 Richards St., Brooklyn, N. Y.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 2117 WRENCHES—Triple Head—

KINSEY CO., THE E. A., Cincinnati, Ohio. See ad. page A 4.  
 Williams & Co., J. H., Brooklyn, N. Y.

## 2118 ZINCS—Battery—

Beattie Zinc Works Co., Reading, Mass.  
 Brady Brass Co., Jersey City, N. J.  
 Carr Metal Co., Fall River, Mass.  
 Coe Brass Manufacturing Co., Torrington, Conn.  
 Jones & Son, J., 64 Cortlandt St., New York.  
 Keystone Telephone Co., Pittsburg, Pa.  
 Matthiessen & Hegeler Zinc Co., La Salle, Ill.  
 National Carbon Co., Cleveland, Ohio.  
 Partrick, Carter & Wilkins, 125 S. 2d St., Philadelphia, Pa.

## 2119 ZINC—Sheet—

Bostwick-Braun Co., The, Toledo, Ohio.  
 Buck Manufacturing Co., M. M., St. Louis, Mo.  
 Cahill, Swift & Co., St. Louis, Mo.  
 Crerar, Adams & Co., Chicago, Ill.  
 Dwight, E. P., 407 Sansom St., Philadelphia, Pa.  
 Haines, Jones & Cadbury Co., Philadelphia, Pa.  
 Hibbard, Spencer, Bartlett & Co., Chicago, Ill.  
 Hunt Co., C. W., 45 Broadway, New York.  
 James & Co. (Inc.), Chattanooga, Tenn.  
 Linley Supply Co., Ezra H., St. Louis, Mo.  
 Louisville Car Wheel and Railway Supply Co., Louisville, Ky.  
 New Orleans Railway and Mill Supply Co. (Ltd.), New Orleans.  
 Pittsburg Supply Co. (Ltd.), Pittsburg, Pa.  
 Sherburne & Co., 53 Oliver St., Boston, Mass.  
 ZELNICKER, WALTER A., St. Louis, Mo. See ad. page A 5.

## 2120 ZINC—Spelter—

AMERICAN STEEL AND WIRE CO., Chicago, Ill. See ad.  
 inside front cover.  
 Ansonia Brass and Copper Co., 19 Cliff St., New York.  
 Baker & Adamson Chemical Co., Easton, Pa.  
 Cherokee-Lanyon Spelter Co., St. Louis, Mo.  
 Detroit White Lead Works, Detroit Mich.  
 Great Western Smelting and Refining Co., Chicago, Ill.  
 Illinois Zinc Co., Peru, Ill.  
 Wythe Lead and Zinc Mine Co., Austinville, Va.

## List of Railways and Addresses of Officials in Charge of Purchasing Departments.

Abbotsford & Northeastern...	F. Rietbrock, Pur. Agt.....	Milwaukee, Wis.
Aberdeen & Asheboro.....	J. R. Page, Supt.....	Aberdeen, N. C.
Aberdeen & Rock Fish.....	John Blue, President.....	Aberdeen, N. C.
Addyston & Ohio River.....	C. E. Burke, 2d V.-P.....	Chicago, Ill.
Adirondack .....	J. White Sprong, Pur. Agt...	Albany, N. Y.
Adirondack Steamboat Co.....	C. L. Stowell, Gen. Mgr.....	Rochester, N. Y.
Ahnapee & Western.....	David Decker, Gen. Mgr.....	Sturgeon Bay, Wis.
Alabama & Tombigbee.....	G. R. Hannon, Gen. Mgr.....	Fulton, Ala.
Alabama & Vicksburg.....	P. Millard, Pur. Agt.....	New Orleans, La.
Alabama Great Southern.....	J. P. Minetree, Pur. Agt.....	Washington, D. C.
Alamogordo & Sacram. Mt....	A. S. Greig, Gen. Supt.....	Alamogordo, N. M.
Albany & Hudson.....	M. E. Stark, Supt.....	Hudson, N. Y.
Albany & Northern .....	J. S. Crews, Gen. Mgr.....	Albany, Ga.
Albert Southern .....	H. E. Graves, Pur. Agt.....	Harvey, Bank, Albert Co., N. B.
Alberta Ry. & Coal Co.....	E. T. Galt, President.....	Lethbridge, Alberta.
Alexander & Rich Mountain..	J. J. Halloway, President....	Wheeling, W. Va.
Algoma Cent. Ry. S. S. Line..	A. M. Harnwell, Pur. Agt....	Sault Ste. Marie, Ont.
Allegheny & Southside.....	C. E. Black, Pur. Agt.....	Pittsburg, Pa.
Alliance & Northern.....	E. E. Scranton, Gen. Mgr.....	Alliance, O.
Am. Fast Freight Line.....	G. E. Highley, Pur. Agt.....	Chicago, Ill.
Androscoog. Lks. Transp. Co...	E. W. Lovejoy, Gen. Mgr.....	Lowell, Mass.
Annapolis, Wash. & Balt....	John W. Brown, President...	Baltimore, Md.
Ann Arbor .....	J. A. Miller, Pur. Agt.....	Toledo, O.
Arcadia & Betsey River.....	C. J. Stark, Gen. Mgr.....	Arcadia, Mich.
Arcata & Mad River.....	V. Zaruba, Manager.....	Arcata, Cal.
Arizona & New Mexico.....	J. Colquhoun, Gen. Supt.....	Clifton, Ariz.
Arizona & Southeastern.....	R. C. Morgan, Supt.....	Bisbee, Ariz.
Arizona & Utah.....	S. B. Connico, V.-P. & G.M.	Kingman, Ariz.
Arkansas & Choctaw.....	C. M. Boswell, Supt.....	Texarkana, Tex.
Arkansas & Louisiana.....	J. D. Moore, Supt.....	Little Rock, Ark.
Arkansas & Oklahoma.....	J. M. Bayless, President....	Bentonville, Ark.
Arkansas Central .....	C. E. Ratcliff, President....	Fort Smith, Ark.
Arkansas Midland .....	J. B. Johnson, Gen. Supt.....	Helena, Ark.
Arkansas River Packet Co....	E. W. B. Nowland, Gen. Mgr.	Memphis, Tenn.
Arkansas Southern .....	C. C. Henderson, Gen. Mgr...	Ruston, La.
Arkansas Southwestern .....	J. A. Woodson, Gen. Mgr.....	Little Rock, Ark.
Arnold Transit Co.....	Geo. T. Arnold, Gen. Mgr.....	Mackinac Island, Mich.
Ashland & Wooster.....	H. B. Camp, President.....	Akron, O.
Ashland Coal & Iron.....	Robt. Peebles, Pur. Agt.....	Ashland, Ky.
Ashland, Siskiwt & Ir. River.	John Bates, Pur. Agt.....	Nash, Wis.
Astoria & Columbia River....	F. D. Kuettner, Aud.....	Astoria, Ore.
Atchison, Topeka & Santa Fe.	W. E. Hodges, Gen. Pur. Agt.	Chicago, Ill.
Atlanta & West Point.....	R. T. Pace, Pur. Agt.....	Atlanta, Ga.
Atlanta, Knoxville & North...	J. B. Newton, Gen. Mgr.....	Marietta, Ga.
Atlantic & Lake Superior.....	C. R. Scoles, Gen. Mgr.....	New Carlisle, Que.
Atlantic & Mexican Gulf S. S.	F. J. Lord, Gen. Mgr.....	68 Broad St., N. Y.
Atlantic & North Carolina...	M. Manly, Pur. Agt.....	Newbern, N. C.
Atlantic City .....	J. D. Landis, Pur. Agt.....	Philadelphia, Pa.
Atlantic Coast Line.....	F. H. Fechtig, Pur. Agt.....	Wilmington, N. C.
Atlantic, Suwanee R. & Gulf.	D. E. Maxwell, Pur. Agt.....	Jacksonville, Fla.
Atlantic, Valdosta & West....	E. C. Long, Vice-President...	Jacksonville, Fla.
Au Sable & Northwestern.....	W. H. Leth, Pur. Agt.....	Au Sable, Mich.
Austin & Northwestern.....	A. N. Lettnaker, Vice-Pres...	Austin, Tex.
Avoyelles .....	H. Flanders, V.-P. & Gen. M.	Marksville, La.
Balt. & Annap. Short Line....	John W. Brown, President...	Baltimore, Md.
Baltimore & Delaware Bay....	E. P. Stacey, Gen. Supt.....	Clayton, Del.
Baltimore & Lehigh.....	W. A. Moore, Gen. Mgr.....	Baltimore, Md.

# RAILWAYS AND RAILWAY PURCHASING AGENTS.

Baltimore & Ohio.....	E. H. Bankard, Pur. Agt.....	Baltimore, Md.
Balt. & Ohio Southwestern...	Frank Brown, Pur. Agt.....	Cincinnati, O.
Baltimore & Phila. Stbt. Co...	F. S. Groves, Agent.....	Philadelphia, Pa.
Baltimore, Chesapeake & Atl.		
Ry. & Steamer Lines.....	Willard Thomson, Gen. Mgr...	Baltimore, Md.
Baltimore Steam Packet Co...	R. H. Chamberlaine, Pur. Agt.	Baltimore, Md.
Bangor & Aroostook.....	F. W. Cram, Gen. Mgr.....	Bangor, Me.
Bangor & Portland.....	W. H. Whalen, Pur. Agt.....	26 Exchange Place, N. Y.
Barclay.....	O. A. Baldwin, Gen. Mgr.....	Towanda, Pa.
Bare Rock.....	J. M. Murdock, Treas.....	Johnstown Pa.
Barre.....	F. W. Stanyan, Gen. Supt....	Barre Vt.
Bath & Hammondsport.....	C. J. Drake, Gen. Mgr.....	Hammondsport, N. Y.
Bayfield Transfer.....	H. C. Hale, Sec'y.....	Bayfield, Wis.
Bay of Quinte.....	The Rathbun Co., Pur. Agt....	Deseronto, Ont.
Bay Terminal.....	R. C. Pew, Gen. Mgr.....	Toledo, O.
Beach & Miller Line.....	J. W. Miller, Gen. Mgr.....	Jacksonville, Fla.
Bear Lake & Eastern.....	Geo. W. Hopkins, President...	Bear Lake, Mich.
Beaver Meadow, Trescow & New Boston.....	B. W. Wilde, Pur. Agt.....	Hazleton, Pa.
Bellaire, Zanes. & Cincinnati.	J. A. Cox, G. F. & P. A.....	Zanesville, O.
Belleville Central.....	Robert Frazer, President.....	209 S. Third St., Philadelphia, Pa.
Bellingham Bay & Brit. Col.	J. J. Donovan, Gen. Supt.....	New Whatcom, Wash.
Belt Ry. of Chicago.....	C. C. Nash, Pur. Agt.....	Chicago, Ill.
Benton Transit Co.....	R. C. Brittain, Mgr.....	Benton Harbor, Mich.
Berkeley.....	D. L. Risley, President.....	Philadelphia, Pa.
Bessemer & Southwestern.....	C. E. Burke, 1st V.-P.....	Rookery, Chicago, Ill.
Blg Stony.....	F. S. Bown, Pur. Agt.....	Interior, Va.
Birmingham & Atlantic.....	W. L. Law, Supt.....	Talladega, Ala.
Birm., Selma & New Orleans.	Bernard Marlon, Supt.....	Selma, Ala.
Birmingham Southern.....	J. G. Moore, Gen. Mgr.....	Birmingham, Ala.
Black & Cache River.....	H. A. Culver, Pur. Agt.....	Sedgwick, Ark.
Black Hills & Ft. Pierre.....	T. J. Grier, Gen. Mgr.....	Lead City, S. D.
Black River Transp. Co. ....	H. D. Williams, President....	Poplar Bluff, Mo.
Bloomsburg & Sullivan.....	D. W. Campbell, Supt.....	Bloomsburg, Pa.
Blowing Rock Line.....	T. L. Craig, Gen. Mgr.....	Lenoir, N. C.
Blue Ridge.....	J. R. Anderson, Supt.....	Anderson, S. C.
Boise, Nampa & Owyhee.....	E. H. Dewey, Gen. Mgr.....	Nampa, Idaho.
Book Cliff.....	W. S. Phillips, Jr., Gen. Mgr.	Grand Junction, Col.
Boston & Albany.....	Heads of Departments.	
Boston & Bangor S. S. Co.....	Wm. H. Hill, Jr., Pur. Agt...	Boston, Mass.
Boston & Maine.....	J. A. Farrington, Pur. Agt....	Boston, Mass.
Boston & Phila. S. S. Co.....	E. B. Sampson, Gen. Mgr.....	Boston, Mass.
Boston, Rev. Beach & Lynn...	John A. Fenno, Supt.....	Boston, Mass.
Bowden Lithia Springs.....	J. H. Louch, Gen. Supt.....	Lithia Springs, Ga.
Boyne City & Southeastern.....	Wm. H. White, Gen. Mgr.....	Boyne City, Mich.
Bradford, Bordell & Kinzua...	John C. McKenna, Gen. Mgr...	Bradford, Pa.
Brainerd & Northern Minn...	W. M. Downie, Aud.....	Minneapolis, Minn.
Bridgeport Steamboat Co.....	F. H. Connelly Pur. Agt.....	Pier 39, E. R., N. Y.
Bridgeton & Saco River.....	M. M. Caswells, Pur. Agt.....	Bridgton, Me.
Bristol.....	Ralph Denio, Supt.....	Bristol, Vt.
British Columbia Yukon.....	E. B. Hussey, Gen. Pur. Agt...	Seattle, Wash.
British Yukon.....	E. B. Hussey, Gen. Pur. Agt...	Seattle, Wash.
Brock, Westport & S. S. Marie	Jas. Mooney, Supt.....	Brockville, Ont.
Brooklyn Wharf & Warehouse Co.....	J. W. Martenis, Traf. Mgr....	68 Broad St., N. Y.
Brooksville.....	Y. Alexander, President.....	Brooksville, Ky.
Brookville.....	C. F. Heldrick, Pur. Agt.....	Brookville, Pa.
Brownstone & Middletown...	Robert J. Walton, Supt.....	Waltonville, Pa.
Brunswick & Florida Stb. Co.	W. M. Tupper & Co., Agts...	Brunswick, Ga.
Bruns. St. Sm. & Dar. Stb. Co.	J. H. Whitmire, Gen. Mgr....	Brunswick, Ga.
Buff. & Niagara Falls Elec. Ry..	H. N. Ransom, Pur. Agt.....	Buffalo, N. Y.
Buffalo & Susquehanna.....	E. O. Cheney, Treas.....	Buffalo, N. Y.
Buffalo, Attica & Arcade.....	S. S. Bulls, President.....	Olean, N. Y.
Buffalo, Rochester & Pittsbr'g	Geo. E. Merchant, Gen. Supt...	Rochester, N. Y.
Burl. & Missouri Riv. in Neb.	Geo. G. Yeomans, P. A.....	Chicago, Ill.
Burlington & Northwest.....	Fred. S. Fear, Pur. Agt.....	Burlington, Ia.
Burlington & Western.....	Fred. S. Fear, Pur. Agt.....	Burlington, Ia.
Burl. Cedar Rapids & North..	W. J. Morrison, Pur. Agt....	Cedar Rapids, Ia.
Butte, Anaconda & Pacific....	M. S. Dean, Gen. Mgr.....	Anaconda, Mont.

# RAILWAYS AND RAILWAY PURCHASING AGENTS.

Cairo .....	Chas. A. Beach, Gen. Supt....	Catskill, N. Y.
Cairo & Kanawha Valley .....	E. E. Wilson, Pur. Agt.....	Cairo, W. Va.
Cairo, Memphis & Southern .....	E. C. Allen Pur. Agt.....	Cairo, Ill.
Caldwell & Northern .....	J. C. Williams, Gen. Mgr.....	Lenoir, N. C.
California & Nevada .....	A. A. Grant, Rec. & G. M.....	San Francisco, Cal.
California Eastern .....	R. S. Selbert, Gen. Mgr.....	Los Angeles, Cal.
Calif. East. Transp. Co. ....	R. S. Selbert, Gen. Mgr.....	Los Angeles, Cal.
California Northwestern .....	H. C. Whiting, Gen. Mgr.....	San Francisco, Cal.
Calvert, Waco & Brazos Val. ....	L. Trice, Vice-President.....	Palestine, Tex.
Cammal & Black Forest .....	C. B. McCullough, Gen. Mgr.....	Cammal, Pa.
Canada Atlantic .....	E. J. Chamberlin, Gen. Mgr.....	Ottawa, Ont.
Canada Eastern .....	Alex. Gibson, Gen. Mgr.....	Marysville, N. B.
Canadian Northern .....	D. B. Hanna, Gen. Supt.....	Winnipeg, Man.
Canadian Pacific .....	A. C. Henry, Gen. Pur. Agt.....	Montreal, Que.
Cane Belt .....	W. T. Eldridge, Gen. Mgr.....	Eagle Lake, Tex.
Cape Fear & Northern .....	G. E. Lemmon, Supt.....	Apex, N. C.
Cape Girardeau, Bloomfield & Southern .....	L. B. Houck, Pur. Agt.....	Cape Girardeau, Mo.
Caraquet .....	T. M. Burns, Pur. Agt.....	Bathurst, N. B.
Carillon & Greenville .....	R. W. Shepherd, Mng. Dir.....	Montreal, Que.
Carolina & Northwestern .....	L. T. Nichols, Pur. Agt.....	Chester, S. C.
Carolina Northern .....	T. C. McNeely, Gen. Supt.....	Lumberton, N. C.
Carrabelle, Tallahas. & Ga. ....	S. D. Chittenden, Gen. Mgr.....	Tallahassee, Fla.
Carson & Colorado .....	R. P. Schwerin, Mgr. of Purchases and Supplies.....	San Francisco, Cal.
Carthage .....	W. C. Petty, Manager.....	Carthage, N. C.
Casco Bay Steamboat Co. ....	C. W. T. Goding, Gen. Mgr.....	Portland, Me.
Cassville & Western .....	J. M. Bayless, President.....	Cassville, Mo.
Catskill & Tannersville .....	C. L. Rickerson, President.....	New York City.
Catskill Mountain .....	Chas. A. Beach, Gen. Supt.....	Catskill, N. Y.
Central New England .....	W. J. Martin, Supt.....	Hartford, Conn.
Central of Georgia .....	J. W. Comer, Pur. Agt.....	Savannah, Ga.
Central of New Jersey .....	G. DeWitt Smith, Pur. Agt.....	Jersey City, N. J.
Central of Pennsylvania .....	J. W. Gephardt, Gen. Supt.....	Belleville, Pa.
Central Ontario .....	Geo. J. Chadd, Pur. Agt.....	Trenton, Ont.
Central Penna. & Western .....	S. B. Haupt, Gen. Mgr.....	Watsonstown, Pa.
Cent. Ry. (New Brunswick) .....	E. G. Evans, Supt.....	Hampton, N. B.
Central Ry. (Nova Scotia) .....	J. Brignell, Gen. Mgr.....	Bridgewater, N. S.
Central Texas & N. W. ....	H. Helland, V.-P. & G. M.....	Waxahachie, Tex.
Central Vermont .....	J. B. Laurie, Pur. Agt.....	St. Albans, Vt.
Chambersburg & Gettysburg .....	J. P. Ranney, Treas.....	Graeffenburg, Pa.
Champlain Transp. Co. ....	Geo. Rushlow, Gen. Mgr.....	Burlington, Vt.
Charleston & Cent. Am. S. S. ....	H. Bayer, Gen. Mgr.....	Charleston, N. C.
Charleston & West. Carolina .....	A. W. Anderson, Gen. Supt.....	Augusta, Ga.
Charleston Cien. & Sutton .....	Chas. K. McDermott, Supt.....	Charleston, W. Va.
Chateaugay .....	J. N. Stower, Gen. Mgr.....	Plattsburgh, N. Y.
Chatham & Lebanon Valley .....	W. C. Roberts, Gen. Mgr.....	Chatham, N. Y.
Chattahoochee Valley .....	J. C. Lanier, Supt.....	West Point, Ga.
Chattanooga & Durham .....	P. J. Murphy, Gen. Mgr.....	Chickamauga, Ga.
Chattanooga & Lookout Mt. ....	J. T. Crass, Gen. Mgr.....	Chattanooga, Tenn.
Chattanooga, Rome & So. ....	C. B. Willburn, President.....	Rome, Ga.
Chattanooga Southern .....	W. W. Kent, Gen. Mgr.....	Chattanooga, Tenn.
Chautauqua Steamboat Co.—For Passenger Dept. ....	G. E. Maltby, Gen. Pas. Agt.....	Jamestown, N. Y.
For Operating Dept. ....	R. J. Rootey, Gen. Supt.....	Jamestown, N. Y.
Cheat Valley .....	T. J. Moore, Gen. Supt.....	Manheim, W. Va.
Chesapeake & Nashville .....	Robt. Meek, Supt.....	Gallatin, Tenn.
Chesapeake & Ohio .....	W. F. Labonta, Pur. Agt.....	Richmond, Va.
Chesapeake & Western .....	A. P. Tallaferrro, Supt.....	Harrisonburg, Va.
Chesapeake Beach .....	J. L. McNeil, Vice-President.....	Washington, D. C.
Chesapeake Steamship Co. ....	Jos. Aitken, Pur. Agt.....	Baltimore, Md.
Chester, Perryville & Ste. Genevieve .....	J. C. Houck, Supt.....	Perryville, Mo.
Chicago & Alton .....	Clarence Price, Pur. Agt.....	Chicago, Ill.
Chicago & Eastern Illinois .....	Geo. J. Schappert, Pur. Agt.....	Chicago, Ill.
Chicago & Lake Superior .....	Henry Herman, Gen. Mgr.....	Milwaukee, Wis.
Chicago & Northwestern .....	Chas. Hayward, Pur. Agt.....	Chicago, Ill.
Chicago & South Bend .....	C. A. Carlisle, Pur. Agt.....	South Bend, Ind.
Chicago & Southeastern (Ind.) .....	C. M. Ward, Gen. Mgr.....	Muncie, Ind.
Chicago & Wabash Valley .....	B. J. Gifford, President.....	Kankakee, Ill.
Chicago & Western Indiana .....	C. C. Nash, Pur. Agt.....	Chicago, Ill.
Chicago, Burl. & Kan. City .....	Geo. G. Yeomans, Pur. Agt.....	Chicago, Ill.
Chicago, Burl. & Quincy .....	Geo. G. Yeomans, Pur. Agt.....	Chicago, Ill.
Chicago, Ft. Mad. & Des. M. ....	E. F. Potter, Gen. Mgr.....	Ft. Madison, Ia.

# RAILWAYS AND RAILWAY PURCHASING AGENTS.

Chicago Great Western .....	A. D. Ward, Pur. Agt.....	St. Paul, Minn.
Chicago, Indiana & Eastern...	H. E. Drew, Gen. Mgr.....	Matthews, Ind.
Chicago, Indpls. & Louisville.	B. E. Taylor, Pur. Agt.....	Chicago, Ill.
Chicago, Iowa & Dakota.....	H. C. Stuart, Gen. Mgr.....	Eldora, Ia.
Chicago Junction .....	A. G. Leonard, Pur. Agt.....	Chicago, Ill.
Chicago, Kalamazoo & Sag.....	H. C. Potter, G. P. & F. A...	Kalamazoo, Mich.
Chicago, Lake Shore & East'n	R. A. Dugan, Pur. Agt.....	Joliet, Ill.
Chicago, Mil. & St. Paul.....	J. T. Crocker, Pur. Agt.....	Chicago, Ill.
Chicago, Peo. & St. L. of Ill.	C. Millard, Gen. Mgr.....	Springfield, Ill.
Chicago, Peoria & Western....	Edward E. Dore, P. A.....	Chicago, Ill.
Chicago, Rock Island & Pac.	F. A. Marsh, Gen. Pur. Agt.	Chicago, Ill.
Chicago, Rock Island & Texas	S. B. Hovey, Gen. Supt.....	Ft. Worth, Tex.
Chi., St. P., Minn. & Omaha..	Isaac Seddon, Pur. Agt.....	St. Paul, Minn.
Chicago Terminal Transfer...	J. N. Falthorn, Pres. & G. M.	Chicago, Ill.
Chi., West Pullman & So.....	W. O. Jones, Sec'y & Treas..	Chicago, Ill.
Chihuahua & Pacific.....	A. H. Paget, President.....	80 Broadway, N. Y.
Chihuahua & Pacific.....	C. Sheldon, Gen. Mgr.....	Chihuahua, Mex.
Chino Valley .....	Geo. Easton, Gen. Mgr.....	Chino, Cal.
Chippewa River & Menomoneie	F. Weyerhaeuser, President..	Chippewa Falls, Wis.
Choctaw, Oklahoma & Gulf...	H. E. Yarnall, Pur. Agt.....	Little Rock, Ark.
Cincinnati & Musk. Valley....	H. O. Hukill, Pur. Agt.....	Pittsburg, Pa.
Cincinnati & Westwood.....	Jas. N. Gamble, President...	Cincinnati, O.
Cincinnati Connecting Belt...	T. D. Rhodes, Gen. Mgr.....	Cincinnati, O.
Cincinnati, Georget'n & Ports	E. W. White, Vice-Pres.....	Cincinnati, O.
Cin., Hamilton & Dayton.....	G. R. Balch, Pur. Agt.....	Cincinnati, O.
Cincinnati, Leb. & North.....	Ralph Peters, Supt.....	Cincinnati, O.
Cin., New Orl. & Tex. Pac....	A. Telford, Pur. Agt.....	Cincinnati, O.
Cincinnati Northern .....	J. B. Flanders, Gen. Supt....	Toledo, O.
Cincinnati Northwestern .....	Robt. Simpson, Gen. Mgr.....	Cincinnati, O.
Cincinnati, Ports. & Virginia.	T. D. Rhodes, Asst. to Pres...	Cincinnati, O.
Cin., Port., Big S. & Pom. P. Co	F. A. Laidley, Gen. Mgr.....	Cincinnati, O.
Citizen's Line Steamers.....	F. G. Cornell, Treas.....	Pier 46, N. R., N. Y.
Clarendon & Pittsford.....	G. H. Boyce, Pur. Agt.....	Proctor, Vt.
Clarion River .....	F. F. Byrne, Gen. Mgr.....	St. Mary's, Pa.
Cleatfield Southern .....	G. C. Shultz, Supt.....	Cleatfield, Pa.
Clendennin & Spencer.....	W. S. Lewis, Gen. Mgr.....	Charleston, W. Va.
Cleveland, Akron & Col.....	H. O. Hukill, Pur. Agt.....	Pittsburg, Pa.
Cleveland & Buf. Trans. Co....	W. H. Thorpe, Chief Steward	Cleveland, O.
Cleveland, Cin., Chi., & St. L.	Geo. Tozzer, Pur. Agt.....	Cincinnati, O.
Cleveland, Lorain & Wheel...	F. E. Now, Pur. Agt.....	Cleveland, O.
Cleveland Terminal & Val....	E. H. Bankard, Pur. Agt.....	Baltimore, Md.
Clyde S. S. Co.....	James Sayers, Pur. Agt.....	Pier 46, N. R., N. Y.
Coahuila & Zacatecas.....	J. F. Lynch, Vice-Pres.....	Satillo, Mex.
Collins & Reldsville.....	A. A. Reppard, Supt.....	Reldsville, Ga.
Colorado & Northwestern.....	C. B. Culbertson, Gen. Mgr...	Boulder, Col.
Colorado & Southern.....	W. N. Schoff, Pur. Agt.....	Denver, Col.
Colorado Eastern .....	Robt. McDowell, Pur. Agt....	Denver, Col.
Colorado Midland .....	C. N. Davids, Pur. Agt.....	Colorado City, Col.
Colorado Springs & Cripple		
Creek District .....	A. C. Ridgway, Gen. Mgr....	Colorado Springs, Col.
Columbia, New. & Laurens...	W. G. Childs, Pres.....	Columbia, S. C.
Columbia River & Puget S'd		
Navigation Co.....	E. W. Crichton, Sec'y.....	Portland, Ore.
Columbia Southern .....	E. E. Lytle, President.....	Portland, Ore.
Columbus, Sand. & Hock.....	Jos. Robinson, Rec'r.....	Columbus, O.
Columbus, Wellst. & South...	W. H. Stevenson, Gen. Mgr...	Lancaster, O.
Colusa & Lake.....	E. A. Harrington, Gen. Supt.	Colusa, Cal.
Congress Gold Co.'s.....	W. F. Staunton, Pur. Agt....	Congress, Ariz.
Cooperstown & Charl. Val....	D. E. Silver, Pur. Agt.....	Cooperstown, N. Y.
Coos Bay, Roseburg & East.		
R. R. & Nav. Co.....	R. A. Graham, Gen. Mgr.....	Marshfield, Ore.
Copper Range .....	R. T. McKeever, Gen. Mgr...	Houghton, Mich.
Cornwall .....	A. M. Patch, Treas.....	Lebanon, Pa.
Cornwall & Lebanon.....	A. D. Smith, Gen. Supt.....	Lebanon, Pa.
Coronado .....	Vincent Surr, Pur. Agt.....	Coronado, Cal.
Corvallis & Eastern.....	Edwin Stone, Mgr.....	Albany, Ore.
Cotton Belt & Northern.....	William Carlisle, Pur. Agt...	Atchison, Kan.
Coudersport & Port Alleg....	B. A. McClure, Gen. Supt....	Coudersport, Pa.
Covington, Flemings & Ash...	N. S. Dudley, Supt.....	Flemingsburg, Ky.
Crooked Creek .....	F. E. Willson, Gen. Mgr.....	Webster City, Ia.
Crosby Transportation Co.....	E. G. Crosby, Gen. Mgr.....	Milwaukee, Wis.
Crystal .....	Louis Phillippl, Pur. Agt....	Crystal City, Mo.
Crystal River .....	S. G. Pierson, Pur. Agt.....	Denver, Col.
Cumberland .....	E. Lafamme, Pur. Agt.....	Spring Hill, N. S.

# RAILWAYS AND RAILWAY PURCHASING AGENTS.

Cumberland & Pennsylvania.....	L. M. Hamilton, Gen. Mgr....	Cumberland, Md.
Cumberland River & Tenn.....	T. Cairns, Gen. Mgr.....	Chenosa, Ky.
Cumberland Valley .....	J. F. Boyd, Supt.....	Chambersburg, Pa.
Dansville & Mount Morris.....	R. H. England, Pur. Agt....	Dansville, N. Y.
Danville & Western.....	G. K. Griggs, Supt.....	Danville, Va.
Dardanelle & Russellville.....	J. E. Skillern, Pur. Agt.....	Dardanelle, Ark.
Darien & Western.....	J. S. Lane, Gen. Mgr.....	Darien, Ga.
Davenport, Rock Isl. & N. W.	E. E. Hughes, Gen. Mgr.....	Davenport, Ia.
Dayton & Union.....	W. F. Stark, Supt.....	Dayton, O.
Dayton, Lebanon & Cin.....	J. C. Gleason, Supt.....	Cincinnati, O.
Deckerville, Osceola & No.....	J. G. Webb, Treas.....	Deckerville, Ark.
Delaware & Hudson Co.....	J. White Sprong, Pur. Agt.	Albany, N. Y.
Delaware, Lack. & Western.....	W. H. Whalen, Pur. Agt.....	26 Exchange Pl., N. Y.
Delaware, Susq. & Schuyl.....	Arthur McClellan, Sec'y.....	Driftton, Pa.
Denison & Pacific Suburban.....	W. G. Nixon, Pur. Agt.....	St. Louis, Mo.
Denver & Rio Grande.....	C. M. Hobbs, Pur. Agt.....	Denver, Col.
Denver, Lakewood & Golden.....	W. W. Borst, Rec'r.....	Denver, Col.
Deseronto Noy. Co. (Ld.).....	The Rathbun Co., Pur. Agts.	Deseronto, Ont.
Des Moines Union.....	F. C. Hubbell, Prest.....	Des Moines, Ia.
Detroit & Cleve. Nav. Co.....	D. Carter, Gen. Mgr.....	Detroit, Mich.
Detroit & Lima Northern.....	F. E. Dewey, Gen. Mgr.....	Detroit, Mich.
Detroit & Mackinac.....	Geo. M. Crocker, Pur. Agt.....	Detroit, Mich.
Detroit & River St. Clair.....	F. W. Brooks, Gen. Mgr.....	Detroit, Mich.
Diamond Jo Line Steamers.....	Diamond Jo. Boat Store, Pur. A.	Dubuque, Ia.
Dominion Atlantic .....	P. Giffins, Gen. Mgr.....	Kentville, N. S.
Dooly Southern .....	B. F. O'Neal, Prest.....	Richwood, Ga.
Dover & Statesboro .....	J. L. Fleming, Prest.....	Statesboro, Ga.
Dry Fork .....	F. K. Bretz, Gen. Mgr.....	Hendricks, W. Va.
Duluth & Iron Range.....	J. L. Greatsinger, Gen. Mgr.	Duluth, Minn.
Duluth, Missabe & North.....	S. F. McLeod, Pur. Agt.....	Duluth, Minn.
Duluth, Red Wing & South.....	L. H. Stiles, Supt.....	Red Wing, Minn.
Duluth, So. Shore & Atl.....	P. W. Brown, Pur. Agt.....	Marquette, Mich.
Dunbar & Wausaukee.....	A. C. Wells, Supt.....	Dunbar, Wis.
Dunkirk, Alleg. Val. & Pitts.....	Allen Bourn, Pur. Agt.....	New York City.
Durham & Charlotte.....	John B. Lennig, Pur. Agt....	Bridensburg, Phila., Pa.
Eagles Mere .....	B. Harvey Welch, Gen. Mgr.	Hughesville, Pa.
East & West.....	Chas. P. Ball, Gen. Mgr.....	Cartersville, Ga.
East Broad Top.....	J. E. Haverstick, Sec & Tr.	Philadelphia, Pa.
East Carolina .....	B. F. Finney, Pur. Agt.....	Tarboro, N. C.
Eastern Kentucky .....	H. W. Bates, Gen. Mgr.....	Riverton, Ky.
East Louisiana .....	N. G. Pearsall, Gen. Mgr.....	Covington, La.
East Tenn. & West. No. Car.....	Jas. E. Lawton, Supt.....	Cranberry, N. C.
East River & Eureka.....	C. L. Rose, Supt.....	Eureka, Cal.
Elgin & Havelock .....	A. H. Robinson, Supt.....	Havelock, N. B.
Elgin, Joliet & Eastern.....	R. A. Dugan, Pur. Agt.....	Joliet, Ill.
Ellaville, Westlake & Jen.....	E. E. West, Gen. Mgr.....	Westlake, Fla.
Elliott & Mt. Holly Ry.....	P. C. Blain, Gen. Mgr.....	Elliott, Ark.
El Paso & Northeastern.....	A. S. Grieg, Gen. Supt.....	Alamogordo, N. M.
Emporia & Gulf.....	J. P. Carter, Gen. Mgr.....	Emporia, Tex.
Emporium & Rich Valley.....	Jos. Kaye, Supt.....	Emporium, Pa.
Erie .....	E. B. Shaffer, Pur. Agt.....	New York City.
Erie & Buffalo Steamboat Co.....	W. H. McFall, Gen. Mgr.....	Erie, Pa.
Erie & Central New York.....	L. N. Frederick, Gen. Mgr....	Cortland, N. Y.
Erie & West. Transp. Co.....	Heads of Departments.	
Erie & Wyoming Valley.....	Chas. P. Savage, Pur. Agt.....	Dunmore, Pa.
Esquimaux & Nanaimo.....	H. K. Prior, Supt.....	Victoria, B. C.
Eureka & Klamath River.....	E. H. Vance, Gen. Mgr.....	Eureka, Cal.
Eureka & Palisade.....	G. D. Abbott, Supt.....	Eureka, Nev.
Eureka Springs — Harrison		
Yellville Passenger Line.....	C. B. Wright, Asst. Mgr.....	Eureka Springs, Ark.
Evansville & Terre Haute.....	A. L. Sanger, Pur. Agt.....	Evansville, Ind.
Evansville, Pad. & Cairo Line.....	J. H. Fowler, Supt.....	Paducah, Ky.
Evansville, Suburb. & Newb.....	Gus Muhlihausen, Gen. Mgr..	Evansville, Ind.
Fairchild & Northeastern .....	J. T. Fatzinger, T. M. & Aud.	Fairchild, Wis.
Farmville & Powhatan.....	W. N. Perdue, Pur. Agt.....	Chester, Va.
Federal District .....	H. P. Bradford, Pur. Agt.....	City of Mexico, Mex.
Findlay, Ft. Wayne & West.....	B. W. Penton, Gen. Supt.....	Findlay, O.
Florence & Cripple Creek.....	J. M. McCarty, Pur. Agt.....	Denver, Col.
Florida East Coast.....	W. H. Beardsley, Treas.....	26 Broadway, N. Y.
Florida Midland .....	M. E. Bishop, Pur. Agt.....	Orlando, Fla.
Flovilla & Indian Springs.....	J. R. L. Smith, Pres.....	Macon, Ga.



# RAILWAYS AND RAILWAY PURCHASING AGENTS.

Fonda, Johnstown & Glovers.	J. Ledlie Hees, Pres.	Gloversville, N. Y.
Fort Worth & Denver City...	J. V. Goode, Gen. Supt.	Fort Worth, Tex.
Fort Worth & New Orleans...	H. Helland, V.-P. & G. Mgr.	Waxahachie, Tex.
Fort Worth & Rio Grande...	H. C. Wicker, Pres. & Gen. S.	Fort Worth, Tex.
Fountain Head	R. M. Doll, Jr., Gen. Mgr.	Knoxville, Tenn.
Frankfort & Cincinnati...	Geo. B. Harper, Gen. Supt.	Frankfort, Ky.
Franklin & Megantic...	P. H. Winslow, Pur. Agt.	Gardiner, Me.
Fremont, Elk. & Mo. Val.	Chas. Hayward, Pur. Agt.	Chicago, Ill.
Fulton County Nar. Gauge...	W. G. Sharretts, Supt.	Lewistown, Ill.
Gainesville & Gulf	V. J. Herlong, Gen. Mgr.	Gainesville, Fla.
Galesburg & Great Eastern...	E. J. Harms, Gen. Supt.	Etherly, Ill.
Galeton, South Branch & Germanla	W. A. Rexford, Gen. Mgr.	Galeton, Pa.
Galveston, Harrisburg & San Antonio	W. G. Van Vleck, Mgr.	Houston, Tex.
Galveston, Houston & Hend.	J. H. Hill, Manager.	Galveston, Tex.
Galveston, Houston & North.	W. G. Van Vleck, V.-Pres.	Houston, Tex.
Genesee & Wyoming...	D. Hyman, Gen. Mgr.	Retsof, N. Y.
George's Creek & Cumberland	Jas. A. Millholland, Gen. Mgr.	Cumberland, Md.
George's Valley	James Mitchell, Supt.	Union, Me.
Georgetown & Western...	J. K. Ritz, Pur. Agt.	Georgetown, S. C.
Georgia	T. K. Scott, Gen. Mgr.	Augusta, Ga.
Georgia & Alabama Stbt. Co.	J. D. Kirkpatrick, P. & G. M.	Rome, Ga.
Georgia Northern	C. W. Pidcock, Gen. Supt.	Pidcock, Ga.
Georgia Pine	R. B. Coleman, Gen. Supt.	Bainbridge, Ga.
Georgia Southern & Florida...	R. D. Ivey, Act. Pur. Agt.	Macon, Ga.
Gettysburg & Harrisburg...	J. D. Landis, Pur. Agt.	Philadelphia, Pa.
Gila Valley, Globe & North...	A. C. Laird, Sec'y	Los Angeles, Cal.
Glenn Springs	H. S. Simpson, Pres.	Glenn Springs, S. C.
Goodrich Transp. Co.	H. W. Kanouse, Pur. Agt.	Chicago, Ill.
Grafton & Brunswick...	F. S. Miller, Gen. Supt.	Grafton, O.
Grafton & Upton...	Levi W. Moore, Pur. Agt.	Milford, Mass.
Graham & Morton Trans. Co.	I. H. Graham, Pres.	Beuton Harbor, Mich.
Grand Rapids & Indiana...	W. R. Shelby, Pur. Agt.	Grand Rapids, Mich.
Grand Trunk System	A. Butze, Gen. Pur. Agt.	Montreal, Que.
Great Falls & Canada...	E. T. Galt, Pres.	Great Falls, Mont.
Great Northern	Howard James, Pur. Agt.	St. Paul, Minn.
Green Bay & Western...	J. A. Jordan, Pur. Agt.	Green Bay, Wis.
Greenwich & Johnsonville...	J. H. Thompson, Supt.	Greenwich, N. Y.
Gulf & Brazos Valley...	W. C. Forbess, Gen. Supt.	Mineral Wells, Tex.
Gulf & Chicago...	A. E. Davis, Gen. Mgr.	Ripley, Miss.
Gulf & Interstate Ry. of Tex.	H. S. Spangler, Receiver.	Galveston, Tex.
Gulf & Miss. Riv. Transp. Co.	C. A. Parker, Traffic Mgr.	Chicago, Ill.
Gulf & Ship Island...	S. S. Bullis, Gen. Mgr.	Gulfport, Miss.
Gulf, Beaumont & Kan. City.	R. R. Herring, Pur. Agt.	Beaumont, Tex.
Gulf, Colorado & Santa Fe...	T. O. Wood, Pur. Agt.	Galveston, Tex.
Gulf Shore	T. M. Burns, Pur. Agt.	Bathurst, N. B.
Gulf, West. Tex. & Pacific...	W. G. Van Vleck, Pres.	Houston, Tex.
Gunpowder Valley	John Roney, Supt.	922 Granby St., Balt., Md.
Halifax & Yarmouth...	L. H. Wheaton, Supt.	Yarmouth, N. S.
Hamilton & Kingston...	J. H. Botthoff, Supt.	Kingston, Mo.
Hampton & Branchville...	W. H. Mauldin, Pres.	Hampton C. H., S. C.
Hampton & St. Martins...	E. G. Evans, Supt.	Hampton, N. B.
Hancock & Calumet...	P. W. Brown, Pur. Agt.	Marquette, Mich.
Hannibal & St. Joseph...	Geo. G. Yeomans, Pur. Agt.	Chicago, Ill.
Hardwick & Woodbury...	E. H. Blossom, Pur. Agt.	St. Johnsbury, Vt.
Harriman & Northeastern...	J. E. Rodas, Gen. Mgr.	Harriman, Tenn.
Hartford & N. Y. Transp. Co.	E. B. Williams, Supt.	Hartford, Conn.
Hartwell	T. J. Linder, Lessee	Hartwell, Ga.
Hawkinsville & Deep Water Boat Line	J. P. Watson, Gen. Mgr.	Hawkinsville, Ga.
Hawkinsville & Florida So...	J. W. Pope, Pres.	Atlanta, Ga.
Hazlehurst & Southeastern...	C. C. Yawkey, Gen. Mgr.	Hazlehurst, Wis.
Hearne & Brazos Valley...	Edwin Wilson, Gen. Supt.	Mumfords, Tex.
Hecla & Torch Lake...	W. A. Childs, Supt.	Calumet, Mich.
Hickory Valley	G. W. Warden, Gen. Supt.	Endeavor, Pa.
Hildago & Northeastern	Tomas Mancera, T. M.	P. O. Box 43, City of Mexico, Mex.
Hillsboro	H. H. Richards, Supt.	Hillsboro, O.
Hocking Valley	C. B. Duffy, Pur. Agt.	Columbus, O.
Holland & Chicago Line...	W. H. Beach, Pres.	Holland, Mich.

# RAILWAYS AND RAILWAY PURCHASING AGENTS.

Holly River & Addison.....	J. T. McGraw, Pres.....	Grafton, W. Va.
Holston Valley .....	A. F. Willey, Gen. Mgr.....	Bristol, Tenn.
Hoosac Tunnel & Wilm.....	Martin A. Brown, G. P. A.....	Wilmington, Vt.
Hot Springs .....	L. D. Richardson, G. S.....	Hot Springs, Ark.
Houck's Missouri & Ark.....	E. F. Blomeyer, Sec'y.....	Cape Girardeau, Mo.
Houston & Shreveport.....	N. S. Meldrum, Gen. Mgr.....	Houston, Tex.
Houston & Texas Central.....	Geo. Howes, Pur. Agt.....	23 Broad St., N. Y.
Houston, East & West Texas.....	N. S. Meldrum, Gen. Mgr.....	Houston, Tex.
Hoxie, Poc. & Northern.....	W. B. Worthen, Pres.....	Little Rock, Ark.
Hudson River Day Line.....	E. E. Olcott, Gen. Mgr.....	Desbrosses St. Pr. N. Y.
Humeston & Shenandoah.....	H. S. Nelson, Supt.....	Clarinda, Ia.
Hunter's Run & Slate Belt.....	A. C. Givier, Supt.....	Pine Grove, Furnace, Pa.
Huntingdon & Broad Top Mt.....	W. W. Noble, Pur. Agt.....	Philadelphia, Pa.
Illinois Central .....	C. A. Beck, Gen. Pur. Agt.....	Chicago, Ill.
Illinois Southern .....	C. H. Bosworth, Pres.....	Chicago, Ill.
Illinois Terminal .....	H. H. Ferguson, Gen. Mgr.....	Alton, Ill.
Independent Line Steamers.....	H. D. DeGrove, G. A.....	Jacksonville, Fla.
Indiana, Decatur & Western.....	G. R. Balch, Pur. Agt.....	Cincinnati, O.
Indiana, Illinois & Iowa.....	T. P. Shotts, Gen. Mgr.....	Chicago, Ill.
Indiana Northern .....	J. D. Oliver, Treas.....	South Bend, Ind.
Indian River & Bay Biscayne	George C. Gibbs, Sec'y.....	St. Augustine, Fla.
Inland Nav. Co.....	F. L. Inman, G. P. A.....	Black Rock, Ark.
Inman-Decker Packet Co.....	C. R. Palmer, G. Storek'r.....	Moncton, N. B.
Intercolonial .....	W. G. Nixon.....	St. Louis, Mo.
International & Gt. North.....	C. F. Libby, Manager.....	Portland, Me.
International S. S. Co.....	E. W. How, Pur. Agt.....	New York.
Interoceanic of Mexico.....	J. A. Esser, Gen. Mgr.....	Stonega, Wise Co., Va.
Interstate .....	H. A. Russell, Pur. Agt.....	St. Louis, Mo.
Interstate Car Transfer Co.....	Fred Wing, Pur. Agt.....	Marshalltown, Ia.
Iowa Central .....	John M. Topper, Supt.....	Colfax, Ia.
Iowa Northern .....	R. Clarke, Pur. Agt.....	Ironton, O.
Iron .....	Chas. J. Pusey, Gen. Mgr.....	Irondale, Ont.
Irondale, Bancroft & Ottawa.....	W. L. Cole, Gen. Supt.....	Keswick, Cal.
Iron Mountain .....	D. W. McFetridge, P. A.....	Hokendauqua, Pa.
Ironton .....	J. M. MacDonald, G. M.....	Cincinnati, O.
Ivorydale & Millcreek Val.....		
Jackson .....	F. Herr, Manager.....	Jackson, La.
Jacksonville & St. Louis.....	C. M. Stanton, Gen. Mgr.....	Jacksonville, Ill.
Jacksonville & Southwest.....	W. E. Cummer, Asst. G. M.....	Jacksonville, Fla.
Jalapa & Cordoba.....	L. P. Frisbie, Gen. Mgr.....	Jalapa, Mex.
Jamestown & Chautauqua.....	J. S. Barrow, Pur. Agt.....	Jamestown, N. Y.
Jellico, Bird Eye & North.....	R. W. Robinson, Mgr.....	Halsey, Ky.
Joggins .....	Robt. Archibald, G. M.....	Joggins, N. S.
Jonesboro, Lake City & East.....	A. J. Kerfoot, Gen. Mgr.....	Jonesboro, Ark.
Kanawha & Coal River.....	W. N. Talley, Supt.....	Spring Hill, W. Va.
Kanawha & Michigan.....	H. A. Cooper, Pur. Agt.....	Toledo, O.
Kanona & Prattsburgh.....	C. Hallagan, Jr., Supt.....	Prattsburgh, N. Y.
Kansas & Southern.....	C. S. Wheeler, Pres.....	Westmoreland, Kan.
Kan. City & Northern Con.....	W. G. Brimson, Gen. Mgr.....	Kansas City, Mo.
Kansas City & Omaha.....	H. P. Reigart, Pur. Agt.....	St. Joseph, Mo.
Kan. City, Clint. & Springfield.....	H. P. Jacques, Pur. Agt.....	Kansas City, Mo.
Kansas City, Ft. S. & Mem.....	H. P. Jacques, Pur. Agt.....	Kansas City, Mo.
Kansas City, Mem. & Birm.....	H. P. Jacques, Pur. Agt.....	Kansas City, Mo.
Kan. City, Exc. Spgs. & Nor.....	E. L. Morse, Gen. Mgr.....	Excelsior Springs, Mo.
Kansas City Northwestern.....	W. G. Nixon, Pur. Agt.....	St. Louis, Mo.
Kansas City, St. Jos. & C. B.....	Geo. G. Yeomans, Pur. Agt.....	Chicago, Ill.
Kansas City Southern .....	A. R. Dillon, Pur. Agt.....	Kansas City, Mo.
Kansas City, Wat. & Gulf.....	H. B. Kane, Recr.....	Lake Charles, La.
Kansas Southwestern .....	J. N. Young, Gen. Mgr.....	Arkansas City, Kan.
Kaslo & Slocan .....	Geo. D. Reid, Pur. Agt.....	Kaslo, B. C.
Keesev. Ausub. Cm. & Lk. Ch.....	C. M. Hopkins, Pur. Agt.....	Keeseville, N. Y.
Kelly's Creek .....	J. W. Dawson, Gen. Mgr.....	Mammoth, W. Va.
Kennebec Central .....	P. H. Winslow, Pur. Agt.....	Gardiner, Me.
Kennebec Steamboat Co.....	J. B. Drake, Pres.....	Bath, Me.
Kent Northern .....	W. Brown, Gen. Mgr.....	Richibucto, N. B.
Kentucky & Ind. Bridge & R.		
R. Co.....	B. S. Josselyn, Mgr.....	Louisville, Ky.
Kentucky Western .....	I. H. Whentercroft, Gen. Mgr.....	Dixon, Ky.
Keokuk & Western .....	A. C. Goodrich, Pur. Agt.....	Keokuk, Iowa.
Kewaunee, Green Bay & W.....	J. A. Jordan, Pur. Agt.....	Green Bay, Wis.

# RAILWAYS AND RAILWAY PURCHASING AGENTS.

Kildare & Linden.....	H. E. Bemis, Mgr.....	Texarkana, Tex.
Kingston & Pembroke—		
Stationery .....	F. Conway, Gen. Pass. Agt..	Kingston, Ont.
Other Supplies .....	F. A. Folger, Jr., Supt.....	Kingston, Ont.
Kishacoquillas Valley .....	J. P. Getter, Gen. Mgr.....	Belleville, Pa.
Knoxville & Bristol.....	H. M. Aiken, Gen. Mgr.....	Morristown, Tenn.
Kymulga & Coosa River.....	J. C. Lanier, Supt.....	Kymulga, Ala.
LaFayette .....	G. E. McGehee, Pres.....	LaFayette, Ala.
Lake Champlain & Moriah....	A. E. Tower, Treas.....	Poughkeepsie, N. Y.
Lake Charles & Leesville.....	C. S. Ramsey, Pur. Agt.....	Lake Charles, La.
Lake Erie & Detroit River....	A. Leslie, Gen. Auditor.....	Walkerville, Ont.
Lake Erie & Western.....	F. H. Greene, Pur. Agt.....	Cleveland, O.
Lake George Steamboat Co....	Geo. Rushlow, Gen. Mgr.....	Burlington, Vt.
Lake Keuka Navigation Co....	C. J. Drake, Gen. Mgr.....	Hammondsport, N. Y.
Lake Michigan & Lake Superior Transportation Co....	P. L. Whitehead, Pur. Agt...	Chicago, Ill.
Lake Ontario & Bay of Quinte		
S. B. Co. (Ltd.).....	H. H. Gildersleeve, Gen. Mgr	Kingston, Ont.
Lake Ontario & St. Lawrence		
River Day Line.....	K. Maxwell, Traffic Mgr.....	Charlotte, N. Y.
Lake Shore & Michigan So....	F. H. Greene, Pur. Agt.....	Cleveland, O.
Lakeside & Marblehead.....	W. M. Harsh, Supt.....	Marblehead, O.
Lake Superior & Ishpeming...	H. R. Harris, Gen. Mgr.....	Marquette, Mich.
Lake Tahoe .....	D. L. Bliss, Jr., Supt.....	Tahoe, Cal.
Lake Terminal .....	J. K. Frye, Pur. Agt.....	Loraln, O.
Lancaster & Chester .....	L. T. Nichols, Pur. Agt.....	Chester, S. C.
Lancaster, Oxford & Southern	A. M. Nevin, Gen. Mgr.....	Oxford, Pa.
L'Assomption .....	A. C. Wurtele, Gen. Mgr.....	Montreal, Que.
Lawrenceville Branch R. R....	E. L. McKelvey, G. P. A.....	Lawrenceville, Ga.
Leavenworth & Topeka.....	C. T. McLellan, Pres.....	Topeka, Kan.
Leavenworth, Kansas & West	W. E. Reid, Auditor.....	Leavenworth, Kan.
Lee Line U. S. Mail Steamers	R. E. Lee, Gen. Mgr.....	Memphis, Tenn.
Lehigh & Hudson River.....	E. M. Reynolds, Pur. Agt...	Warwick, N. Y.
Lehigh & Lackawanna.....	F. Hill, G. A., 106 S. 4th St.	Philadelphia, Pa.
Lehigh & New England.....	L. Goodwin, Pur. Agt.....	Pen Argyl, Pa.
Lehigh Valley .....	C. F. Coleman, Pur. Agt.....	39 Cortlandt Street, N. Y.
Lexington & Eastern.....	J. R. Barr, Gen. Mgr.....	Lexington, Ky.
Licking River .....	E. W. Strack, Gen. Mgr.....	Ashland, Ky.
Ligonier Valley .....	Geo. Senft, G. M., Ligonier	Westmoreland Co., Pa.
Lima & Honeoye Falls.....	Frank Rathbon, Pres.....	Lima, N. Y.
Linehan Ry. Transfer Co.....	Bart. E. Linehan, Pres.....	Dubuque, Ia.
Little Falls & Dolgeville.....	Chas. Sullivan, Supt.....	Dolgeville, N. Y.
Little Kanawha .....	C. L. Williams, Supt.....	Parkersburg, W. Va.
Little Rock & Hot Springs		
Western .....	H. G. Fleming, Gen. Supt....	Hot Springs, Ark.
Little Rock & White River		
Packet Co.....	A. J. Carter, Gen. Mgr.....	Little Rock, Ark.
Live Oak & Gulf .....	C. W. White, Pur. Agt.....	Citra, Fla.
Long Island .....	H. B. Hodges, Pur. Agt.....	Long Island City, N. Y.
Long Island & N. E. Stbt. Co.	Jas. Elton, Mgr.....	Greenport, N. Y.
Los Angeles & Redondo.....	H. B. Ainsworth, Sec.....	Redondo, Cal.
Los Angeles Terminal.....	F. K. Rule, Gen Mgr.....	Los Angeles, Cal.
Lotbiniere & Megantic.....	G. W. Robins, Supt.....	Lyster, Que.
Louisiana & Arkansas.....	J. H. White, Supt.....	Stamps, Ark.
Louisiana & Northwestern....	J. D. Beardsley, Gen. Mgr...	Gibbsland, La.
Louisiana Southern .....	H. McCall, Jr., Auditor.....	New Orleans, La.
Louisville & Atlantic.....	C. M. Browning, Supt.....	Versailles, Ky.
Louisville & Cin. Packet Co....	F. A. Laidley, Gen. Mgr.....	Cincinnati, O.
Lolsv. & Evansv. Mail Co.....	G. H. Wilson, Supt.....	Louisville, Ky.
Louisville & Nashville.....	P. P. Huston, Pur. Agt.....	Louisville, Ky.
Louisville & Wadley.....	J. C. Little, Pres.....	Louisville, Ga.
Louisv., Ev. & St. L. Con....	E. D. Seltz, Pur. Agt.....	Louisville, Ky.
Louisv., Henderson & St. L....	C. P. Bush, Pur. Agt.....	Louisville, Ky.
Louisv., New Alb. & Corydon.	G. W. Briffett, Pur. Agt.....	Corydon, Ind.
McCloud River .....	G. W. Scott, Sec.....	San Francisco, Cal.
McKeessport Connecting.....	Wm. B. Schiller, Treas.....	Pittsburg, Pa.
Macon & Birmingham.....	Julian R. Lane, Gen Mgr.....	Macon, Ga.
Macon, Dublin & Savannah...	Paul Hough, Pur. Agt.....	Macon, Ga.
Madison, Alton & Chicago.....	Paul A. Fusz, Gen. Mgr.....	St. Louis, Mo.
Maine Central .....	C. D. Barrows, Pur. Agt.....	Portland, Me.
Maine Steamship Co.....	Horatio Hall, G. F. A.....	222 South St., N. Y.

# RAILWAYS AND RAILWAY PURCHASING AGENTS.

Mammoth Cave.....	J. A. McGoodwin, Recr.....	Franklin, Ky.
Manahawkin & Long Beach Transportation Co.....	Isaac A. Lee, Pur. Agt.....	1414 S. Penn Square, Philadelphia, Pa.
Manhattan .....	Ashbel Green, Supply Agt....	195 Broadway, N. Y.
Manistee & Grand Rapids.....	C. J. Canfield, Pur. Agt.....	Manistee, Mich.
Manistee & Northeastern .....	J. M. Peterson, Pur. Agt.....	Manistee, Mich.
Manistique .....	G. H. Stalker, Auditor.....	Detroit, Mich.
Manistique & Northwestern..	C. E. Kelso, Treas.....	Manistique, Mich.
Manitou & Pike's Peak.....	C. W. Sells, Mgr.....	Manitou, Col.
Manitou S. S. Co.....	Allan McIntyre, Sup.....	Chicago, Ill.
Mann's Boudoir Car Co.....	S. W. Bretzfeld, Pur. Agt....	New York City.
Manufacturers' .....	E. W. Stamm, Pur. Agt.....	St. Louis, Mo.
Mar. & Phoe. & Salt Riv. V.....	F. I. Kendall, Pur. Agt.....	San Francisco, Cal.
Marinette, Tomahawk & W.....	W. E. Jeannot, Pur. Agt.....	Tomahawk, Wis.
Marshall, Timpson & Sarbine Pass .....	G. M. D. Grigsby, Pres.....	Longview, Jn., Tex.
Marshalltown & Dakota.....	M. F. Collins, Gen. Man.....	Fraser, Ia.
Marshfield & South-eastern.....	W. A. Scott, Pres.....	619-620 Monadnock Bldg., Chicago, Ill.
Mary Powell Steamboat Co.....	A. E. Anderson, Sec. & G. P. A.....	Rondout, N. Y.
Mason & Oceana.....	M. F. Butters, Gen. Mgr.....	Ludington, Mich.
Mason City & Clear lake.....	W. E. Brice, Pres.....	Mason City, Ia.
Mason City & Fort Dodge.....	O. B. Grant, Supt .....	Ft. Dodge, Ia.
Mauch Chunk, Summit Hill & Switchback .....	Alonzo P. Blakeslee, G. M.	Mauch Chunk, Pa.
Memphis & Arkansas City Packet Co .....	D. A. Rees, Sec. & Treas.....	10 West Court St., Memphis, Tenn.
Memphis & Vicksburg Packet Co .....	A. E. Cummins, G. F. & P. A	Lock Box 170, Memphis, Tenn.
Memph. N. O. & Cin. Pkt. Co	Robert W. Wise, Supt.....	Cincinnati, O.
Merch. & Miners Transp. Co.	W. B. Turner, Supt.....	Baltimore, Md.
Merida, Progreso & Izamal.....	H. G. Canton, Gen. Mgr.....	Merida, Mex.
Mexican .....	George Foote, Gen. Mgr.....	City of Mexico, Mex.
Mexican Central .....	F. P. McIntyre, Pur. Agt.....	Boston, Mass.
Mexican International .....	Charles Knap, Secretary.....	23 Broad Street, N. Y.
Mexican Mineral .....	C. J. Nourse, Jr., Sec.....	27 William St., N. Y.
Mexican National .....	G. C. Raoul, Pur. Agt.....	6 Wall St., N. Y.
Mex. Nat. Construction Co.....	Walter Hinchman, Pur. Agt. 11	Broadway, N. Y.
Mexican Northern .....	New York Office of Co.....	27 William St., N. Y.
Mexican Southern .....	Thomas Linton, Sec.....	London, Eng.
Mexico, Cuernavaca & Pacific.	J. H. Hampson, Gen. Mgr.....	Mexico City, Mex.
Miami Transportation Co.....	C. C. Richardson, Gen. Mgr.....	Lockland, O.
Michigan Central .....	J. R. Dutton, Pur. Agt.....	Detroit, Mich.
Mich., Ind. & Illinois Line.....	J. P. Tracy, Gen. Mgr.....	Chicago, Ill.
Middleburg & Schoharie.....	E. E. Vroman, Pur. Agt.....	Schoharie, N. Y.
Middletown & Cincinnati.....	J. L. Roney, Pur. Agt.....	Middletown, O.
Midland Terminal .....	W. K. Gillett, Pres. & G. M	Denver, Col.
Midv. Swainsb. & Red Bluff.....	E. C. Branan, Supt.....	Swainsboro, Ga.
Millen & South-western .....	W. M. Durden, V. P.....	Monte, Ga.
Mill Vy. & Mt. Tamalpals Sc.	S. B. Cushing, Pres.....	San Rafael, Cal.
Milwaukee & Superior.....	Henry Herman, Gen. Mgr.....	Milwaukee, Wis.
Milwaukee, Ben. Har. & Col.	A. A. Patterson, Jr., Gen. M.	Benton Harbor, Mich.
Mineral Range .....	P. W. Brown, Pur. Agt.....	Marquette, Mich.
Minneapolis & St. Louis.....	E. T. Campbell, Pur. Agt.....	Minneapolis, Minn.
Minn., St. P. & Sault Ste. M.	J. E. Shaughnessy, Pur. Agt.....	Minneapolis, Minn.
Minnesota & Wisconsin.....	C. H. Cannon, Pur. Agt.....	Spring Valley, Wis.
Miss. River & Bonne Terre.....	Gust. Setz, Pur. Agt.....	Bonne Terre, Mo.
Mississippi River, Hamburg & Western .....	H. H. Wolbert, Local Treas..	Hamburg, Ark.
Missouri, Kansas & Texas.....	C. N. Stevens, Pur. Agt.....	St. Louis, Mo.
Missouri Midland .....	D. B. Elv. Gen. Mgr.....	Columbia, Mo.
Missouri Pacific .....	W. G. Nixon, Pur. Agt.....	St. Louis, Mo.
Missouri Southern .....	P. E. Wilson, Gen. Mgr.....	Leeper, Mo.
Mobile & Bay Shore.....	R. H. Duesberry, Pur. Agt.....	Mobile, Ala.
Mobile & Ohio.....	R. H. Duesberry, Pur. Agt.....	Mobile, Ala.
Mo. Jack. & Kansas City.....	H. H. Lane, Pur. Agt.....	Mobile, Ala.
Moncton & Buctouche.....	E. G. Evans, Supt.....	Moncton, N. B.
Monongahela & Ohio River Transportation Co.....	J. M. Boyd, Gen. Mgr.....	Pittsburg, Pa.
Monongahela Connecting.....	Benjamin Page, Pur. Agt.....	Pittsburg, Pa.
Monson .....	W. L. Estabrooke, Supt.....	Monson Junction, Me.

# RAILWAYS AND RAILWAY PURCHASING AGENTS.

Montana .....	R. A. Harlow, V.-P.....	Helena, Mont.
Monte Cristo .....	T. W. Foster, Supt.....	Everett, Wash.
Montfort & Gatineau Colon- ization .....	Jos. Brunet, Pres.....	Montreal, P. Q.
Montauk Steamboat Co.....	H. B. Hodges, Pur. Agt.....	Long Island City, N. Y.
Monterey & Mexlean Gulf.....	A. Monnom, Gen. Mgr.....	Monterey, Mex.
Moutour .....	W. A. Dinker, Pur. Agt.....	Pittsburg, Pa.
Montpeller & Wells river.....	W. A. Stowell, Gen. Mgr.....	Montpeller, Vt.
Montpeller Pas. & Fht. Dept.....	F. W. Morse, G. F. & P. A.	Montpeller, Vt.
Moore County .....	W. B. Eekhout, Gen. Mgr.....	Aberdeen, N. C.
Morris County .....	Edward Kelly, Gen. Supt.....	Port Oram, N. J.
Moscow, Camden & San Aug.	E. A. Carter, Pur. Agt.....	Camden, Tex.
Moshassuck Valley .....	G. M. Clarke, Supt.....	Saylesville, R. I.
Mt. Hope Mineral.....	W. A. Major, Pur. Agt.....	Catasauqua, Pa.
Mt. Jewett, Kinz. & Riterv.....	Ellisha K. Kane, Pur. Agt.....	Kushequa, Pa.
Munising .....	A. Ward, Gen. Supt.....	Munising, Mich.
Muscatine, North & South.....	Chas. Howard, Gen. Mgr.....	Muscatine, Ia.
Nantucket Central.....	D. L. Weeks, Pur. Agt.....	Boston, Mass.
Narragansett Pier .....	G. T. Lanphear, Supt.....	Peace Dale, R. I.
Nash. & Evans. Packet Co.....	T. M. Gallagher, G. F. & P. A.	Nashville, Tenn.
Nashville & Knoxville.....	T. W. Stewart, Supt.....	Cookeville, Tenn.
Nashville Chat. & St. Lo.....	John C. Kennedy, Pur. Agt.....	Nashville, Tenn.
Nash. Pad. & Cairo Pkt. Co.....	T. M. Gallagher, G. F. & P. A.	Nashville, Tenn.
Natchez & Bay. Sara Pkt. Co.	S. E. Rumble, G. F. & P. A.	Natchez, Miss.
Natchez & Vicksburg Pkt. Co.	J. N. Carpenter, G. M.....	Natchez, Miss.
Natchez, Red River & Texas.	C. A. Gardner, Gen. Mgr.....	Natchez, Miss.
Natchl. & Red River Valley.	L. Caspari, Pres .....	Natchitoches, La.
National City & Otay.....	E. A. Hornbeck, Supt.....	National City, Cal.
Nelson & Fort Sheppard.....	F. S. Forest, Supt.....	Spokane, Wash.
Nevada-California-Oregon.....	E. Gest, Manager .....	Reno, Nev.
Nevada Central .....	C. L. McFaul, A. G. M.....	Austin, Nev.
Nevada Co. Narrow Gauge.....	J. F. Kidder Manager.....	Grass Valley, Cal.
Newark Bay Short Line.....	C. B. Zabriskie, Pres.....	185 Water St., N. Y.
New Bruns. & Pr. Edw. Isl.....	F. C. Harris, Pur. Agt.....	Sackville, N. B.
Newburg & South Shore.....	J. N. Fleming, Pur. Agt.....	Cleveland, O.
Newburg, Dutchess & Conn.....	G. Hunter Brown, Jr., G. M.	Matteawan, N. Y.
Newfoundland .....	H. Crawford, Pur. Agt.....	St. Johns, N. F.
New Jersey & New York.....	E. B. Sheffer, Pur. Agt.....	New York City.
New Mexico & Arizona.....	R. B. Schwerin, Mgr. of Pur- chases and Supplies.....	San Francisco, Cal.
New Mexico Ry. & Coal Co.....	A. S. Greig, Gen. Supt.....	Alamogordo, N. M.
New Orleans & Northeast.....	P. Millard, Pur. Agt.....	New Orleans, La.
New Orleans & Northwest.....	N. V. Truly, Pur. Agt.....	Natchez, Miss.
New Orleans & Western.....	J. W. Mumper, Pur. Agt.....	New Orleans, La.
New Orleans, Fort Jackson & Grand Isle .....	J. S. Landry, Supt.....	Algiers, Ia.
Newport & Sherman's Val.....	C. K. Miller, Sec'y & Treas.	Newport, Pa.
Newport & Wickford R. R. & Steamboat Line .....	C. U. Coffin, Agent.....	Newport, R. I.
New York & Long Branch.....	Rufus Blodgett, Supt.....	Long Branch, N. J.
New York & New Orange.....	C. M. Tompkins, G. M.....	71 Broadway, N. Y.
New York & Ottawa.....	H. W. Gays, Pur. Agt.....	Ottawa, Ont.
New York & Pennsylvania.....	G. M. Beasor, Pur. Agt.....	Canlsteo, N. Y.
New York & Texas S. S. Co.....	C. H. Mallory & Co., G. Agts.	Pier 20, E. R., N. Y.
New York Cent. & Hud. Riv.....	Allan Bourn, Pur. Agt.....	New York City.
New York, Chic. & St. Louis.	W. P. Dittoe, Pur. Agt.....	Cleveland, O.
New York, New Hav. & H.....	Henry A. Bishop, Pur. Agt.....	New Haven, Conn.
New York, Ontario & West.....	C. A. Draper, Pur. Agt.....	56 Beaver St., N. Y.
New York, Phila. & Norf.....	Wm. A. Patton, Pres.....	Philadelphia, Pa.
New York, Susq. & West.....	E. B. Sheffer, Pur. Agt.....	New York City.
New York, Texas & Mex.....	W. G. Van Vleck, Pres.....	Houston, Tex.
Niagara Gorge .....	Godfrey Morgan, G. M.....	Niagara Falls, N. Y.
Niagara River Line.....	John Foy, Manager .....	Toronto, Ont.
Niagara, St. Cath. & Toronto	F. A. Cheney, Gen. Mgr.....	St. Catharines, Ont.
Noble Lake & Southern.....	E. P. Ladd, Pres.....	Ladd, Ark.
Norfolk & Ocean View.....	Peter Wright, Gen. Mgr.....	Norfolk, Va.
Norfolk & Southern.....	M. K. King, Gen. Mgr.....	Norfolk, Va.
Norfolk & Washington, D. C., Steamboat Co.....	John Callahan, Gen. Mgr.....	7th Street Wharf, Washington, D. C.
Norfolk & Western.....	E. T. Burnett, Pur. Agt.....	Roanoke, Va.
North American Transp. Co.....	M. P. Connolly, Sec. & Treas.	40 Dalhousie St., Quebec, Can.

# RAILWAYS AND RAILWAY PURCHASING AGENTS.

North American Transportation & Trading Co.....	W. H. Isom, V.-P.....	Chicago, Ill.
Northampton & Hertford.....	F. Kell, Gen. Mgr.....	Gumberry, N. C.
North Bend & Kettle Creek.....	F. A. Blackwell, Gen. Mgr.....	Gleasonston, Pa.
Northern Alabama.....	J. P. Minetree, Pur. Agt.....	Washington, D. C.
Northern Central.....	D. S. Newhall, Pur. Agt.....	Philadelphia, Pa.
Northern Indiana.....	L. B. Jenckes, Pur. Agt.....	Hammond, Ind.
North. Mich. Transp. Co.....	E. W. Seymour, Gen. Mgr.....	Chicago, Ill.
Northern Navigation Co. of Ontario (Limited).....	Address Headquarters.....	Collingwood, Ont.
Northern Pacific.....	F. G. Prest, Pur. Agt.....	St. Paul, Minn.
Northern Steamship Co.....	F. C. Cruger, Pur. Agt.....	Buffalo, N. Y.
Northern Transit Co.....	M. A. Bradley, Gen. Mgr.....	Cleveland, O.
North Pacific Coast.....	W. F. Russell, G. F. A.....	San Francisco, Cal.
Northwest Transp. Co.....	J. D. Beatty, Gen. Mgr.....	Sarnia, Ont.
Oberlin & LaGrange.....	J. S. Clark, Pur. Agt.....	Cleveland, O.
Oceanic Steamship Co.....	J. D. Spreckels & Bros. Co., Gen. Agt.....	643 Market St., San Francisco, Cal.
Ocklawaha Navigation Co.....	R. H. Thompson, G. M.....	Palatka, Fla.
Offerman & Western.....	J. J. McDonough, V.-P.....	Savannah, Ga.
Ogdensburg & Lk. Champ.....	H. G. Smith, Pur. Agt.....	Rutland, Vt.
Ohio & Big Kanawha River Transportation Co.....	W. E. Roe, Gen. Mgr.....	Marietta, O.
Ohio & Little Kanawha.....	J. Hope Sutor, Gen. Mgr.....	Zanesville, O.
Ohio River.....	F. E. Blaser Pur. Agt.....	Parkersburg, W. Va.
Ohio River & Charleston.....	T. D. Rhodes, Asst. to Pres.....	Cincinnati, O.
Ohio River & Lake Erie.....	H. D. Emerson, V.-P.....	Alliance, O.
Ohio River Transit Co.....	M. J. Frelberg, Gen. Mgr.....	Cincinnati, O.
Ohio Southern.....	C. D. McKelvey, Gen. Supt.....	Springfield, O.
Ohio Valley & Junction.....	B. W. Robinson, Sec'y.....	Akron, O.
Old Dominion S. S. Co.....	P. O. Anderson, Pur. Agt.....	Pier 26, N. R., N. Y.
Old River & Kissatchie.....	J. C. Rives, Pres.....	Montrose, La.
Omaha & St. Louis.....	W. G. Brimson, Gen. Mgr.....	Kansas City, Mo.
Omaha Bridge & Terminal.....	John R. Webster, Gen. Mgr.....	Omaha, Neb.
Omaha, Kan. City & East.....	W. G. Brimson, Gen. Mgr.....	Kansas City, Mo.
Oregon R. R. & Nav. Co.....	F. G. Wheeler, Pur. Agt.....	Portland, Ore.
Oregon Short Line.....	I. O. Rhoades, Gen. Pur. Agt.....	Salt Lake City, Utah.
Orford Mountain.....	A. C. Lytle, Supt.....	Eastman, Que.
Oriental S. S. Co.....	W. H. Avery, Gen. Agt.....	San Francisco, Cal.
Oshawa.....	The Rathbun Co., Pur. Agts.....	Deseronto, Ont.
Otis.....	Chas. A. Beach, Supt.....	Catskill, N. Y.
Ottawa & Gatineau.....	H. L. Maltby, Sec'y & Treas.....	162 St. James St., Montreal, Que.
Ottawa River Nav. Co.....	R. W. Shepherd, Mng. Dir.....	Montreal, Que.
Ouachita River.....	Asa Neimeyer, Mgr.....	Saginaw, Ark.
Pacific & Arctic.....	E. B. Hussey, Gen. Pur. Agt.....	Seattle, Wash.
Pacific & Idaho Northern.....	Jas. Mallory, Resident Engr.....	Welser, Idaho.
Pacific Coast Company.....	W. E. Nichols, Pur. Agt.....	Seattle, Wash.
Pacific S. S. Co.....	Goodall, Perkins & Co., Gen. Agents.....	10 Market St., San Francisco, Cal.
Pacific Mail S. S. Co.....	R. P. Schwerin, Gen. Mgr.....	San Francisco, Cal.
Pacific Nav. Co. (Astoria).....	Samuel Elmore, Pres.....	Astoria, Ore.
Pacific Navigation Co.....	C. E. Palmer, Auditor.....	Seattle, Wash.
Panama.....	Walter Bloomfield, P. A.....	29 Broadway, N. Y.
Panama R. R. S. S. Line.....	Walter Bloomfield, P. A.....	29 Broadway, N. Y.
Paragould Southeastern.....	W. C. Hasty, Pres.....	Paragould, Ark.
Parral & Durango.....	S. E. Gill, Pres.....	Pittsburg, Pa.
Patten & Sherman.....	J. I. Long, Gen. Mgr.....	Parral, Mex.
Pawnee.....	P. P. Burleigh, Vice-Pres.....	Houlton, Me.
Pecos & Northern Texas.....	E. W. Clifford, Supt.....	Pawnee, Ill.
Pecos River.....	D. H. Nichols, Gen. Mgr.....	Amarillo, Tex.
Pecos Valley & Northeast.....	D. H. Nichols, Gen. Mgr.....	Pecos, Tex.
Pemberton & Hightstown.....	D. H. Nichols, Gen. Mgr.....	Rosswell, N. M.
Peninsular.....	W. Burtis, Supt.....	New Egypt, N. J.
Penin. & Occidental S. S. Co.....	A. H. Anderson, Pres.....	Seattle, Wash.
Pennsylvania.....	C. L. Myers, Manager.....	Jacksonville, Fla.
Penna. Lines West of Pittsb.....	D. S. Newhall, Pur. Agt.....	Philadelphia, Pa.
Pennsylvania & Northwest.....	H. O. Hukill, Pur. Agt.....	Pittsburg, Pa.
Pensacola, Alabama & Tenn.....	F. S. Lewis, Pur. Agt.....	Philadelphia, Pa.
People's.....	S. R. Dishman, Treas.....	Pensacola, Fla.
	Wm. D. Pollard Supt.....	Pottsville, Pa.

# RAILWAYS AND RAILWAY PURCHASING AGENTS.

People's Line Steamers, Alabama River .....	T. H. Moore, Gen. Mgr.....	Montgomery, Ala.
People's Line Steamers, Hudson River .....	W. W. Everett, Pres.....	Pier 32, N. R., N. Y.
People's Transit Co.....	S. S. Burke, Pres.....	Benton Harbor, Mich.
Peoria & Pekin Terminal.....	L. E. Myers, Gen. Man.....	Peoria, Ill.
Peoria & Pekin Union.....	F. L. Tompkins, Gen. Supt..	Peoria, Ill.
Pere Marquette .....	H. D. Norris, Act. Pur. Agt..	Saginaw, Mich.
Perkiomen .....	J. D. Landis, Pur. Agt.....	Philadelphia, Pa.
Perry County .....	H. C. Shearer, Supt.....	New Bloomfield, Pa.
Philadelphia & Brigantine....	C. R. Van Etten, G. M.....	Brigantine, N. J.
Philadelphia & Reading.....	J. D. Landis, Pur. Agt.....	Philadelphia, Pa.
Phil. Newtown & New York..	J. D. Landis, Pur. Agt.....	Philadelphia, Pa.
Phila., Wilmington & Balt....	D. S. Newhall, Pur. Agt.....	Philadelphia, Pa.
Phillipsburg .....	F. B. Wells, Gen. Man.....	Phillipsburg, P. Q.
Phillips & Rangeley .....	Fletcher Pope, V. P. & G. M.	Redington Mills, Me.
Pickens .....	J. T. Taylor, Gen. Mgr.....	Pickens, S. C.
Pine Bluff & Western.....	W. T. Radford, C. E. & Supt.	Pine Bluff, Ark.
Pine Bluff Arkansas River....	G. L. Morris, Gen. Mgr.....	Pine Bluff, Ark.
Pinehurst .....	C. D. Benbow, Gen. Supt.....	Pinehurst, N. C.
Pittsburg & Castle Shannon..	E. J. Reamer, Supt.....	Pittsburg, Pa.
Pittsburg & Ctn. Pkt. Line...	A. J. Henderson, Pur. Agt....	Pittsburg, Pa.
Pittsb. & Elizabeth Pkt. Line	J. I. Boyd, Gen. Supt.....	Pittsburg, Pa.
Pittsburg & Lake Erie.....	R. Evans, Pur. Agt.....	Pittsburg, Pa.
Pittsburg & Moon Run.....	N. F. Sanford, Gen. Mgr.....	Moon Run, Pa.
Pittsburg & Western .....	B. Finney, Jr., Pur. Agt.....	Allegheny, Pa.
Pittsburg, Bessemer & L. E..	J. M. Ritchie, Pur. Agt.....	Pittsburg, Pa.
Pitts. Brownsv. & Gen. Pk. Co.	S. S. Graham, Gen. Mgr.....	Brownsville, Pa.
Pittsburg, Chart. & Yough..	J. B. Safford, Supt.....	McKees Rocks, Pa.
Pittsburg, Johnstown, Ebensburg & Eastern .....	J. O. Reed Supt.....	Phillipsburg, Pa.
Pittsburg Junction .....	R. Finney, Supt.....	Pittsburg, Pa.
Pittsburg, Lisbon & Western	K. E. Barringer, Gen. Mgr....	Lisbon, O.
Pitts. Shawmut & Northern..	M. S. Blair, Gen. Supt.....	Hornellsville, N. Y.
Pittsburg, Wheeling Marietta & Zanesville Pkt. Co.....	C. S. Beckwith, Pres. & G. M	Pittsburg, Pa.
Pittsburg Transfer Co.....	H. E. Billington, Gen. Mgr....	Pittsburg, Pa.
Plant System .....	M. F. Loughman, Pur. Agt....	12 W. 23d St., N. Y.
Pontiac, Oxford & Northern..	W. C. Sanford, Gen. Supt....	Pontiac, Mich.
Pontiac Pacific Junction.....	H. L. Maltby, Sec. & Treas..	162 St. James St., Montreal, Que.
Port. Arth. Chan. & Dock Co.	W. H. Cogswell, Act. G. M.	Port Arthur, Tex.
Port Arthur, Dul. & West....	Ross Thompson, Supt.....	Port Arthur, Ont.
Porter's Creek & Gauley.....	Peter Carroll, Gen. Mgr.....	Porter, W. Va.
Port Jervis, Monticel. & N. Y.	H. J. Cox, G. F. & P. A.....	Port Jervis, N. Y.
Portland & Rumford Falls....	Waldo Pettengill, V. P.....	Rumford Falls, Me.
Portland, Mt. Desert & Machias Steamboat Co.....	Geo. F. Evans, Gen. Mgr....	Portland, Me.
Portland S. S. Co.....	J. F. Lacombe, Gen. Mgr....	Portland, Me.
Portland, Vancouver & Yak...	G. T. Gerlinger, Sec.....	Vancouver, Wash.
Portsmouth & Tygart Val....	A. T. Johnson, Pres.....	Portsmouth, O.
Porvenir de Matehuala.....	M. M. Gonzales, Supt.....	Matehuala, Mex.
Potomac, Fred. & Piedmont..	W. H. Richards, Gen. Mgr....	Fredericksburg, Va.
Poughkeepsie & Eastern.....	C. Hicks, Supt.....	Poughkeepsie, N. Y.
Powellton & Pocahontas.....	D. T. Evans, Gen. Mgr....	Powellton, W. Va.
Prescott & Eastern.....	R. E. Wells, Asst. G. M.....	Prescott, Ariz.
Prescott & Northwestern.....	C. F. Bemis, Pur. Agt.....	Prescott, Ark.
Prince Edward Island.....	C. R. Palmer, Gen. Sto'k'per	Moncton, N. B.
Pullman Co.....	W. A. Angell, Pur. Agt.....	Chicago, Ill.
Pullman Co.....	S. W. Bretzfeld, E. Pur. Agt	15 Broad St., N. Y.
Quakertown & Eastern.....	A. F. Baker, Pur. Agt.....	Quakertown, Pa.
Quebec .....	W. R. Russell, Gen. Supt....	Quebec, Que.
Quebec & Lake St. John.....	J. G. Scott, Manager.....	Quebec, Que.
Quebec Central .....	A. H. Anderson, Pur. Agt....	Sherbrooke, Que.
Quebec Southern .....	F. D. White, Gen. Mgr.....	Rutland, Vt.
Quebec S. S. Co.....	Arthur Ahern, Sec.....	Quebec, Que.
Queen & Crescent Route—		
C. N. O. & T. P. Ry.....	A. Telford, Pur. Agt.....	Cincinnati, O.
A. G. S. R. R.....	J. P. Minetree, Pur. Agt.....	Washington, D. C.
N. O. & N. E. R. R.....	P. Millard, Pur. Agt.....	New Orleans, La.
A. & V. R. R.....	P. Millard, Pur. Agt.....	New Orleans, La.
V. S. & P. R. R.....	P. Millard, Pur. Agt.....	New Orleans, La.
Queen Anne's .....	I. W. Troxel, Gen. Mgr.....	Queenstown, Md.
Quincy, Carrollton & St. L....	H. S. Reardon, Agt. for Pur	Carlinville, Ill.

# RAILWAYS AND RAILWAY PURCHASING AGENTS.

Raleigh & Cape Fear.....	J. A. Mills, Gen. Mgr.....	Raleigh, N. C.
Raleigh & Western.....	S. A. Henszey, Pres.....	Cummock, N. C.
Randsburg.....	E. H. Stagg, Gen. Mgr.....	Johannesburg, Cal.
Raquette Lake.....	Geo. Howes, Pur. Agt.....	23 Broad St., N. Y.
Raritan River.....	C. H. Sisson, Sec'y.....	Fuller Building, Jersey City, N. J.
Raritan Term. & Transp. Co..	N. W. Pierce, Pur. Agt.....	Perth Amboy, N. J.
Red River Line.....	Chas. W. Drown, Tr. Mgr....	New Orleans, La.
Red Springs & Rowmore.....	W. F. Williams, Pres.....	Red Springs, N. C.
Reynoldsville & Falls Creek..	Lucius W. Robinson, G. M....	Reynoldsville, Pa.
Rice Lake, Dallas & Men.....	S. J. Fuller, Auditor.....	Rice Lake, Wis.
Richelieu & Ontario Nav. Co.	H. A. Pelletier, Pur. Agt....	228 St. Paul St., Montreal, Que.
Richmond, Fred. & Potomac..	T. L. Courtney, Supt.....	Richmond, Va.
Rich., Nor. & Charls. Stbt. Co.	S. D. Crenshaw, Sec'y.....	Richmond, Va.
Rio Grande.....	Frank Rivadulla, Sec'y.....	Brownsville, Tex.
Rio Grande & Eagle Pass.....	Miss Mary Powers, Pur. Agt.	Laredo, Tex.
Rio Grande Junction.....	W. G. Choate, Supt.....	New Castle, Col.
Rio Grande, Sierre Madre & Pacific.....	J. P. Ramsey, Gen. Mgr.....	El Paso, Tex.
Rio Grande Southern.....	E. T. Jeffrey, Pres.....	Denver, Col.
Rio Grande Western.....	Thomas Tipton, Pur. Agt....	Salt Lake City, Utah.
Roaring Creek & Bellington..	F. P. Rease, Gen. Supt.....	Bellington, W. Va.
Roaring Creek & Charleston..	F. P. Rease, Gen. Supt.....	Bellington, W. Va.
Rockaway Valley.....	J. N. Pidcock, Jr., P. A.....	Morristown, N. J.
Rockbridge Alum Springs and Victoria & Western.....	J. A. Frazier, Pur. Agt.....	Rockbridge Alum Springs, Va.
Rock Island & Peoria.....	H. S. Cable, Vice-Pres.....	Rock Island, Ill.
Rockport, Langdon & Nor.....	H. Warneke, Gen. Mgr.....	Rockport, Mo.
Rockwood & Tenn. River.....	W. Warner, Jr., Supt.....	Rockwood, Tenn.
Rogue River Valley.....	E. J. DeHart, Pres.....	Portland, Ore.
Rutland.....	H. G. Smith, Pur. Agt.....	Rutland, Vt.
St. Augustine & South Beach	H. J. Ritchie, Gen. Mgr.....	St. Augustine, Fla.
St. Clair, Mad. & St. L. Belt..	Wm. Graham, Supt.....	Alton, Ill.
St. Johns & Ocklawaha River		
Steamboat Co.....	J. E. Lucas, Gen. Mgr.....	Palatka, Fla.
St. Johnsbury & Lake Cham..	J. A. Farrington, Pur. Agt....	Boston, Mass.
St. Joseph & Grand Island.....	H. P. Reigart, Pur. Agt.....	St. Joseph, Mo.
St. Lawrence & Adirondack..	Chas. H. Burnett, Pur. Agt....	51 E. 44th St., N. Y.
St. Louis & Hannibal.....	J. A. Jordan, Gen. Mgr.....	Hannibal, Mo.
St. Louis & Memphis.....	Seth S. Barnes, Pres. & G. M.	New Madrid, Mo.
St. Louis & No. Arkansas.....	Geo. West, Manager.....	Eureka Springs, Ark.
St. Louis & San Francisco....	C. H. Boggs, V. P. & At. to G. M.	St. Louis, Mo.
St. Louis & Tenn. Riv. Pk. Co.	C. R. Daly, Pur. Agt.....	St. Louis, Mo.
St. L., Caruthersv. & Memphis	I. H. Burgoon, Gen. Supt.....	Caruthersville, Mo.
St. Louis, Iron Mt. & South..	W. G. Nixon, Pur. Agt.....	St. Louis, Mo.
St. Louis, Kan. City & Col....	Geo. L. Sands, Vice-Pres....	St. Louis, Mo.
St. Louis, Kennett & South..	V. B. Houck, G. F. & P. A.	Cape Girardeau, Mo.
St. L., Keokuk & Northwest..	Geo. G. Yeomans, Pur. Agt....	Chicago, Ill.
St. Louis Merch. Bdge. Term.	J. E. Williams Jr., Pur. Agt.	St. Louis, Mo.
St. Louis Southwestern.....	W. G. Nixon, Pur. Agt.....	St. Louis, Mo.
Saginaw, Tuscola & Huron....	H. D. Norris, Pur. Agt.....	Detroit, Mich.
Salem.....	B. S. Ambler, Rec'r.....	Salem, O.
Salisbury & Harvey.....	A. Sherwood, Gen. Mgr.....	Hillsboro, N. B.
Salt Lake & Los Angeles.....	W. J. Bateman, Gen. Mgr.....	Salt Lake City, Utah.
Salt Lake & Mercur.....	J. G. Jacobs, Gen. Mgr.....	Salt Lake City, Utah.
Salt Lake & Ogden.....	S. Bamberger, Gen. Mgr.....	Salt Lake City, Utah.
San Antonio & Aran. Pass....	T. B. Palfrey, Pur. Agt.....	San Antonio, Tex.
San Antonio & Gulf.....	E. E. Shackford, G. M.....	San Antonio, Tex.
Sandersville.....	Louis Cohen, Pur. Agt.....	Sandersville, Ga.
San Diego, Cuya. & Eastern..	W. S. Waterman, G. M.....	San Diego, Cal.
San Diego, Pacific Beach & La Jolla.....	G. E. Babcock, Gen. Mgr.....	San Diego, Cal.
Sandy River.....	P. H. Winslow, Pur. Agt.....	Gardiner, Me.
San Franc. & San Joaq. Val..	Alex. Mackie, Sec'y.....	San Francisco, Cal.
San Pete Valley.....	S. T. Pearson, Pur. Agt.....	Salt Lake City, Utah.
Santa Fe Pacific.....	W. E. Hodges, Pur. Agt.....	Chicago, Ill.
Santa Fe, Presc. & Phoenix..	R. E. Wells, Asst. G. M.....	Prescott, Ariz.
Satilla River Transp. Co.....	J. A. Foster, Pres. & G. M....	Brunswick, Ga.
Savannah & Statesboro.....	W. F. Wright, Gen. Supt.....	Statesboro, Ga.
Savannah Line.....	J. W. Comer, Pur. Agt.....	Savannah, Ga.
Schoharie Valley.....	E. E. Vroman, Pur. Agt.....	Schoharie, N. Y.



# RAILWAYS AND RAILWAY PURCHASING AGENTS.

Seaboard Air Line .....	O. D. Ball, Jr., G. P. Agt.....	Portsmouth, Va.
Searcy & Des Arc.....	John T. Hicks, Pur. Agt.....	Searcy, Ark.
Seattle & International.....	O. M. Laing, Pur. Agt.....	Seattle, Wash.
Sebasticoek & Moosehead.....	A. B. Thompson, Mgr.....	Hartland, Me.
Sedalla, Warsaw & S. W.....	Geo. W. Inge, Gen. Supt.....	Sedalla, Mo.
Seneca Lake Stream Nav. Co.	W. L. Herendeen, G. M.....	Geneva, N. Y.
Sharpsville .....	S. K. Harris, Pur. Agt.....	Pittsburg, Pa.
Shelbyville, Bloom. & Ohio.....	John C. Hose, Supt.....	Shelbyville, Ky.
Sherman, Shrevep. & South.....	E. M. Alvord, Supt.....	Greenville, Tex.
Shore Line .....	F. J. McPeake, Supt.....	St. John, N. B.
Shreveport & Red Riv. Val.....	P. McIlvried, Gen. Mgr.....	Shreveport, La.
Sibley, Lake Blsteneau & So.	S. H. Wilson, Pur. Agt.....	Kansas City, Mo.
Sierra Ry. of California.....	S. D. Freshman, Treas.....	San Francisco, Cal.
Sierra Valleys .....	K. J. Carroll, Auditor.....	San Francisco, Cal.
Silverlake .....	Geo. L. Eaton, Treas.....	Rochester, N. Y.
Silverton .....	Alex. Anderson, Supt.....	Silverton, Col.
Silverton Northern .....	Alex. Anderson, Supt.....	Silverton, Col.
Sioux City & Pacific.....	Charles Hayward, Pur. Agt.....	Chicago, Ill.
Skaneateles .....	J. McNamara, Supt.....	Skaneateles, N. Y.
Smithonia & Dunlap.....	Jas. M. Smith, Pur. Agt.....	Smithonia, Ga.
Somerset .....	W. M. Ayer, Supt.....	Oakland, Me.
Sonora .....	R. P. Schwerlin, Mgr. P. & S.	San Francisco, Cal.
South Branch .....	W. F. Andrews, Sec'y.....	Granere, Pa.
South Car. & Georgia Ext.....	T. D. Rhodes, Asst. to Pres.....	Cincinnati, O.
Southern .....	J. P. Minetree, Pur. Agt.....	Washington, D. C.
Southern California.....	W. E. Hodges, Pur. Agt.....	Chicago, Ill.
Southern Indiana .....	James Walsh, V.-Pres.....	Chicago, Ill.
Southern Kan. Ry. of Texas.....	D. A. Sweet, Traf. Mgr.....	Amarillo, Tex.
Southern Missouri & Ark.....	V. R. Caldwell, Pur. Agt.....	Cape Girardeau, Mo.
Southern Pacific Co.—		
Atlantic System .....	C. Trumphy, Pur. Agt.....	New Orleans, La.
Pacific System .....	R. P. Schwerlin, Mgr. of Purchases & Supplies.....	San Francisco, Cal.
Southern Transportation Co.....	W. T. Gibson, Mgr.....	Savannah, Ga.
South Georgia .....	J. W. Oglesby, Pres.....	Quitman, Ga.
South Haven & Eastern.....	D. H. Patterson, Gen. Mgr.....	Paw Paw, Mich.
South Manchester .....	R. O. Cheney, Gen. Mgr.....	South Manchester, Conn.
South St. Paul Belt.....	M. D. Flower, Gen. Mgr.....	So. St. Paul, Minn.
South Shore R. R.....	F. N. Hoffstot, Supt.....	Pittsburg, Pa.
South Shore Ry.....	H. Beauchemin, Gen. Mgr.....	P. O. Box 498, Sorel, Que.
Sparks, Moultrie & Gulf.....	M. F. Amorous, Pres.....	Bayboro, Ga.
Spokane Falls & Northern.....	F. S. Forest, Supt.....	Spokane, Wash.
Staten Island Rap. Transit.....	W. H. Lewis, Pur. Agt.....	Foot Whitehall St., N. Y.
Sterling Mountain .....	B. Moffat, Jr., Supt.....	Sterlington, N. Y.
Stewartstown .....	W. H. Fulton, Pur. Agt.....	Stewartstown, Pa.
Stillmore Air Line.....	Geo. M. Brinson, Pres.....	Stillmore, Ga.
Stony Creek .....	J. D. Landis, Pur. Agt.....	Philadelphia, Pa.
Strasburg .....	E. C. Musselman, Lessee.....	Leaman Place, Pa.
Stuttgart & Arkansas River.....	A. V. Stafford, Manager.....	Stuttgart, Ark.
Suffolk & Carolina.....	Geo. L. Barton, Gen. Mgr.....	Suffolk, Va.
Sugar Land .....	E. B. Cunningham, Asst. G. M.	Sugar Land, Tex.
Sumpter Valley .....	Jos. A. West, Sec'y.....	Baker City, Ore.
Surry, Sussex & Southampton	F. E. Waters, Pres.....	Baltimore, Md.
Sydney & Louisburg .....	J. W. Revere, Pur. Agt.....	Glance Bay, Can.
Sylvania .....	W. M. Hobby, Supt.....	Sylvania, Ga.
Tabor & Northern.....	Robert McClelland, Pres.....	Tabor, Ia.
Tacoma & Columbia River.....	William Bailey, Jr., P. A.....	40 Wall St., N. Y.
Talbotton .....	W. T. Dennis Supt.....	Talbotton, Ga.
Tallassee & Montgomery.....	General Office Headquarters.	Montgomery, Ala.
Tallah Falls .....	S. C. Dunlap, Gen. Mgr.....	Clarksville, Ga.
Tavares & Gulf.....	W. B. Tucker, Gen. Mgr.....	Orlando, Fla.
Tellico .....	O. R. Brigham, Gen. Mgr.....	Athens, Tenn.
Temiscouata .....	T. Crockett, Gen. Mgr.....	Riviere du Loup, Que.
Tennessee & Cumb. River.....	J. H. Lory, Pres.....	Bear Spring, Tenn.
Tennessee Central .....	E. A. Faulhaber, Pur. Agt.....	St. Louis, Mo.
Tenn. Coal, Iron & R. R. Co.	W. F. Tyler, Pur. Agt.....	Birmingham, Ala.
Tennessee & French Broad		
Navigation Co.....	Bruce Davis, P. & G. M.....	Knoxville, Tenn.
Tennessee Northern .....	E. T. Warner, Supt.....	LaFollete, Tenn.
Tennessee River Nav. Co.....	W. C. Wilkey, Gen. Mgr.....	Chattanooga, Tenn.
Term. R. R. Assn. of St. Louis	J. E. Williams, Jr., Pur. Agt	St. Louis, Mo.
Terre Haute & Indianapolis.....	C. R. Peddle, Pur. Agt.....	Indianapolis, Ind.
Terre Haute & Logansport.....	C. R. Peddle, Pur. Agt.....	Indianapolis, Ind.

# RAILWAYS AND RAILWAY PURCHASING AGENTS.

Texarkana, Shreve & Natch..	Ben Collins, Gen. Mgr.....	Texarkana, Ark
Texas & New Orleans.....	W. G. Van Vleet, Mgr.....	Honston, Tex.
Texas & Pacific.....	W. G. Nixon, Pur. Agt.....	St. Louis, Mo.
Texas, Arkansas & Louisiana	B. F. Ellington, Act. G. M.	Atlanta, Tex.
Texas Central.....	Chas. Hamilton, G. M.....	Waco, Tex.
Texas City Terminal.....	J. H. Myers, Manager.....	Houston, Tex.
Texas Midland.....	E. H. R. Green, Pres.....	Terrell, Tex.
Texas, Sabine Val. & N. W.	G. M. D. Grigsby, Pres.....	Longview Jn., Tex.
Texas Southern.....	S. P. Jones, Gen. Mgr.....	Marshall, Tex.
Thomson Line Steamers.....	A. N. Knapp, Traf. Mgr.....	Detroit, Mich.
Thousand Islands.....	The Rathbun Co., Pur. Agts.	Deseronto, Ont.
Three Rivers Packet Co.....	S. E. Pitner, Sec'y & Treas.	Knoxville, Tenn.
Tifton & Moultrie.....	M. F. Amorous, Pres.....	Bayboro, Ga.
Tifton & Northeastern.....	H. H. Tift, Pres.....	Tifton, Ga.
Tifton, Thomasville & Gulf..	F. J. Ansley, Pur. Agt.....	Thomasville, Ga.
Tilmonburg, Lk. Erie & Pac..	J. H. Teall, Gen. Mgr.....	Tilsonburg, Ont.
Tionesta Valley.....	Jerry Crary, Supt.....	Shemfield, Pa.
Toledo & Ohio Central Ext....	T. D. Dale, Gen. Mgr.....	Marletta, O.
Toledo & Ohio Central.....	H. A. Cooper, Pur. Agt.....	Toledo, O.
Toledo, Peoria & Western.....	E. N. Armstrong, G. S.....	Peoria, Ill.
Toledo St. Louis & Western..	Benj. Norton, P. & G. M....	Toledo, O.
Toluca & Eastern.....	H. Duggan, Pur. Agt.....	Toluca, Ill.
Toluca & San Juan.....	Adolfo Henkel, Gen. Mgr.....	Toluca, Mex.
Toluca & Tenango.....	Adolfo Henkel, Gen. Mgr.....	Toluca, Mex.
Tombigbee & Northern.....	G. F. Montgomery, G. M.....	Fairford, Ala.
Toronto, Ham. & Buffalo.....	E. Fisher, Gen. Supt.....	Hamilton, Ont.
Transylvania.....	J. F. Hays, Gen. Mgr.....	Brevard, N. C.
Trinity Valley.....	E. J. Denpree, Gen. Mgr.....	Oakhurst, Tex.
Tuckerton.....	Richard Ashhurst, Treas.....	330 Walnut St., Philadelphia, Pa.
Tuscaloosa Belt.....	F. W. Monnish, Supt.....	Tuscaloosa, Ala.
Tuscarora Valley.....	J. C. Moorhead, Supt.....	Port Royal, Pa.
Tussey Mt. & Grafton Canyon	J. H. Marshall, Sec.-Treas...	1156 Beech St., Philadelphia.
Ultima Thule, Arka. & Miss...	R. W. Hule, Gen. Mgr.....	Daleville, Ark.
Ulster & Delaware.....	E. Coykendall, Gen. Supt....	Rondout, N. Y.
Unadilla Valley.....	F. F. Culver, Gen. Mgr.....	80 Broadway, N. Y.
Union.....	W. J. Post, Pur. Agt.....	Pittsburg, Pa.
Union Pacific.....	J. W. Griffith, Pur. Agt.....	Omaha, Neb.
Union Palace Car Co.....	S. W. Bretzfeld, Pur. Agt....	New York.
United Fruit Co.....	R. Barthel, Asst. Mgr.....	New Orleans, La.
United States & Dominion Transportation Co.....	W. V. Booth, Gen. Mgr.....	Chicago, Ill.
United Verde & Pacific.....	H. J. Allen, Pur. Agt.....	Jerome, Ariz.
Utahna & North Fork.....	E. H. Reid, Gen. Mgr.....	Scottdale, Pa.
Utah & Pacific.....	J. A. West, C. E.....	Salt Lake City, Utah.
Vandalla Line.....	C. R. Peddle, Pur. Agt.....	Majestic Building, Indianapolis, Ind.
Vanegas, Cedral & Mat.....	Rafael Salln, Pur. Agt.....	Cedral, Mex.
Velasco Terminal.....	E. D. Dorchester, G. M.....	Velasco, Tex.
Vera Cruz & Pacific.....	J. W. Gillespie, G. F. A.....	Cordoba, V. C., Mex.
Vermont & Province Line.....	E. J. Chamberlin, G. M.....	Ottawa, Ont.
Vicksb. & Greenv. Pkt. Co....	A. F. Nimtz, Pur. Agt.....	Vicksburg, Miss.
Vicksburg, Shreveport & Pac..	P. Millard, Pur. Agt.....	New Orleans, La.
Victoria Route.....	Dodwell & Co., Ltd., G. Agts.	Tacoma, Wash.
Virginia & Southwestern.....	J. Warick, Pur. Agt.....	Bristol, Tenn.
Virginia & Truckee.....	O. W. Tennant, Supply Agt....	Carson City, Nev.
Virginia Navigation Co.....	Irvin Weisiger, Gen. Mgr.....	Richmond, Va.
Wabash.....	H. H. Wellman, Pur. Agt.....	St. Louis, Mo.
Wabash, Chester & Western..	Henry Mason, Supt.....	Chester, Ill.
Wacacaw Line.....	D. T. McNeill, Supt.....	Conway, S. C.
Wadley & Mount Vernon.....	T. J. James, Pur. Agt.....	Wadley, Ga.
Walkill Valley.....	Allan Bourn, Pur. Agt.....	G. C. Station, N. Y.
Ward Line Steamers.....	Jas. E. Ward & Co., Agts.....	113 Wall St., N. Y.
Warren & Corsicana Pacific..	I. L. Campbell, Gen. Mgr.....	Houston, Tex.
Warrior & Bigbee Riv. Pk. Co.	E. B. Kirkbride, Gen. Mgr.....	Mobile, Ala.
Washburn, Bayfield & I. R....	C. F. M. Tilling, Pur. Agt....	Washburn, Wis.
Wash., Alex. & Mt. Vernon....	J. Colvin, Supt.....	Washington, D. C.
Washington & Columbia Riv..	Joseph McCabe, Gen. Mgr.....	Walla Walla, Wash.
Washington & Potomac.....	W. W. Early, Pur. Agt.....	Brandywine, Md.
Washington County.....	H. F. Dowst, Gen. Mgr.....	Calais, Me.
Washington Run.....	J. S. Newmyer, Supt.....	Star Junction, Pa.

# RAILWAYS AND RAILWAY PURCHASING AGENTS.

Waukegan & Mississippi Val.	T. L. Wolf, Gen. Mgr.	The Rookery, Chicago, Ill.
Waycross Air Line	A. Bonnyman, Supt.	Waycross, Ga.
Waynesburg & Washington	H. O. Hukill, Pur. Agt.	Pittsburg, Pa.
Weatherf. Min. Wells & N. W.	L. M. Fouts, Pres.	Weatherford, Tex.
Wellington & Powellsville	J. W. Branning, Pres.	Edenton, N. C.
Western & Atlantic	J. C. Kennedy, Pur. Agt.	Nashville, Tenn.
Western Maryland	H. M. Borgan, Pur. Agt.	Hillen Station, Baltimore.
Western Ry. of Alabama	R. T. Pace, Pur. Agt.	Atlanta, Ga.
Western Ry. of Mexico	Geo. R. Douglas, Gen. Mgr.	Mazatlan, Mex.
West Jersey & Seashore	D. S. Newhall, Pur. Agt.	Philadelphia, Pa.
West Shore	Allan Bourn, Pur. Agt.	G. C. Station, N. Y.
West Side Belt	J. J. Scully, Pres.	Pittsburg, Pa.
West Virginia & Southern	J. M. Collins, Pur. Agt.	Marmet, W. Va.
West Virginia Cent. & Pltts.	W. H. Bower, Pur. Agt.	Elkins, W. Va.
West Virginia Northern	J. M. Templeton, Gen. Mgr.	Kingwood, W. Va.
Wheeling & Lake Erie	F. C. Gates, Pur. Agt.	Cleveland, O.
Wheeling Terminal	Otto Schroll, Supt.	Wheeling, W. Va.
Whippany River	R. W. McEwan, Supt.	Whippany, N. J.
White Star Line	B. W. Parker, Gen. Mgr.	Detroit, Mich.
Wichita Valley	J. V. Goode, Gen. Supt.	Fort Worth, Tex.
Wiggins Ferry Co.	C. L. Leslie, Pur. Agt.	Security Bldg., St. Louis.
Wilkesbarre, Dallas & Harvey's Lake	A. A. Holbrook, Pur. Agt.	Wilkesbarre, Pa.
Williamsport & No. Branch	S. D. Townsend, Gen. Mgr.	Hughesville, Pa.
Williams Valley	C. M. Kaufman, G. T. M.	Tower City, Pa.
Williamsville, Green. & St. L.	C. C. Rainwater, Pres.	St. Louis, Mo.
Wilmington Sea Coast	R. O. Grant, Supt.	Wilmington, N. C.
Winifrede	R. B. Cassady, Supt.	Winifrede, W. Va.
Winona & Western	J. J. Mahoney, Gen. Supt.	Winona, Minn.
Wiscasset & Quebec	G. P. Farley, Gen. Mgr.	Wiscasset, Me.
Wisconsin & Michigan	W. G. Tait	Gd. Cen. P. St., Chicago.
Wisconsin Central	Jno. A. Whaling, Pur. Agt.	Milwaukee, Wis.
Wisconsin Western	W. H. Thomson, Supt.	Wauzeka, Wis.
Wood River Branch	L. M. Barber, Supt.	Hope Valley, R. I.
Woodruff Slpg. & Par. C. Co.	S. W. Bretzfeld, Pur. Agt.	New York City.
Woodstock	J. G. Porter, Gen. Mgr.	Woodstock, Vt.
Wrightsville & Tennille	T. T. Hollomon, Supt.	Tennille, Ga.
Wyoming & Missouri River	Geo. M. Nix, V.-P. & G. M.	Aladdin, Wyo.
Yarmouth S. S. Co.	W. A. Chase, Sec'y & Treas.	Yarmouth, N. S.
Yazoo & Mississippi Valley	C. A. Beck, Gen. Pur. Agt.	Chicago, Ill.
Yazoo City Transp. Co.	A. F. Nintz, Pur. Agt.	Vicksburg, Miss.
Yellow River	E. E. Reese, Gen. Mgr.	Laurel Hill, Fla.
York Southern	C. H. Jones, Jr., Gen. Mgr.	York, Pa.
Youghiogheny Central	Thos. J. Mitchell, G. M.	Cleveland, O.
Yreka	J. Churchill, Pres.	Yreka, Cal.

Zimmerman, Leesv. & So. W. J. A. Bentley, Pres. & G. M.. Zimmerman, La.

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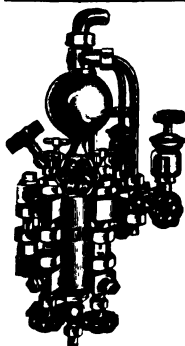


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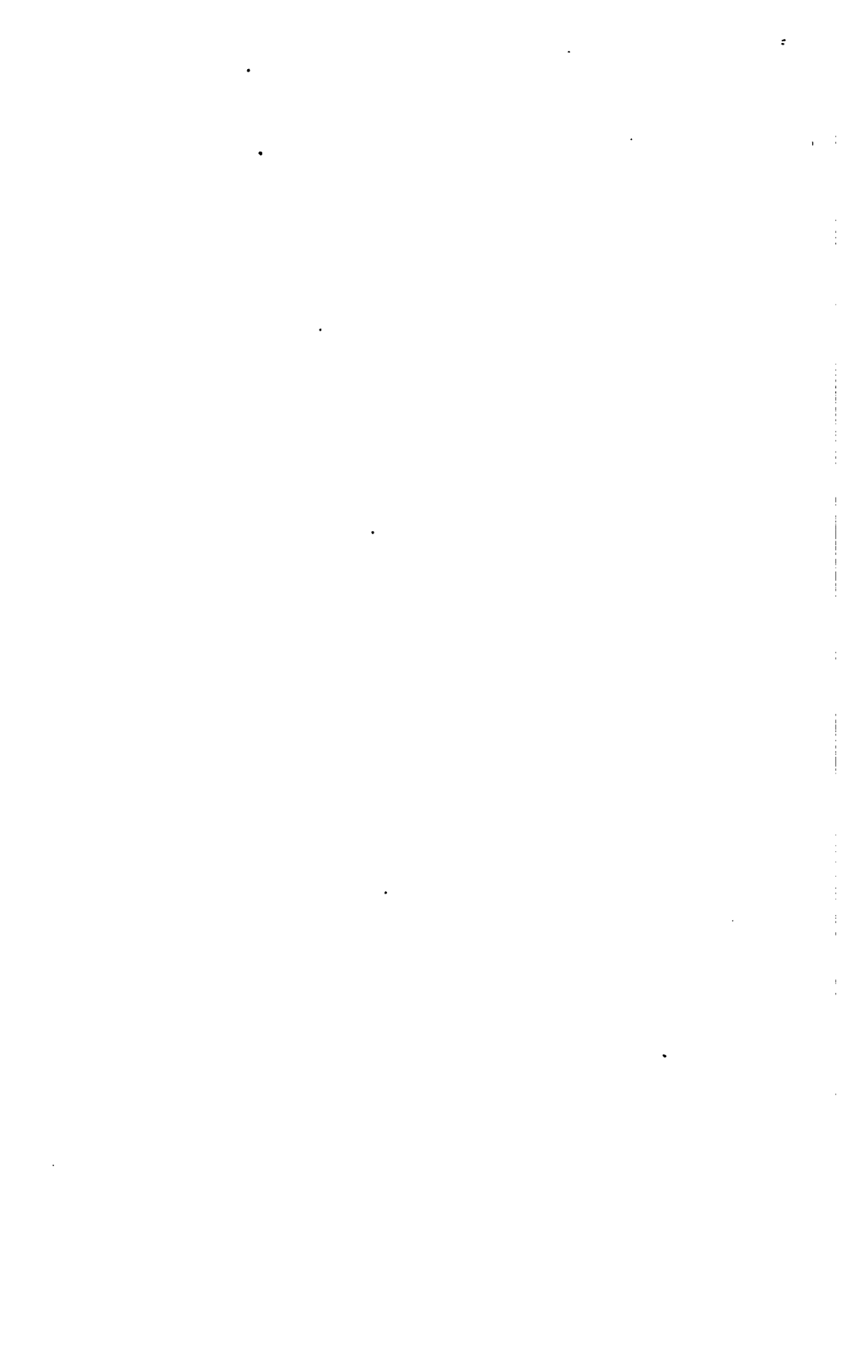
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